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MONTANA

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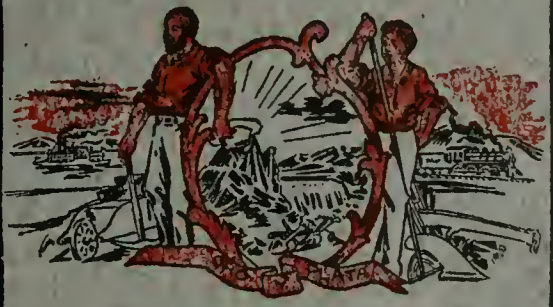

Its
Resources
and
Attractions
for the
Homeseeker,
Prospector
and
Investor.

ST. LOUIS, 1904

MONTANA

ITS PROGRESS AND PROSPERITY, RESOURCES AND INDUSTRIES, OPPORTUNITIES FOR HOMESEEKERS AND CAPITALISTS; MINING, STOCK RAISING, AGRICULTURE, HORTICULTURE ✦ ✦ ✦ ✦

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Edited by John B. Read.

MONTANA STATE BUILDING, LOUISIANA PURCHASE EXPOSITION

STATE CAPITOL BUILDING, HELENA, MONTANA

HISTORY AND TOPOGRAPHY.

Originally in part within the limits of the region embraced in the Louisiana grant and later forming a part of the territory of Idaho, Montana became a separate territorial division of the Union in 1861. Prior to the gold discoveries in the early '60's the Indians were in undisturbed possession of the land. Only a few adventurous explorers like Lewis and Clarke, Fathers Ravalli and DeSmet and Maximilian, the traveler, had ventured across the country; but when gold was discovered in Alder gulch and later in Bannack, Bear, Silver Bow, Last Chance, Confederate and Diamond City, a new era dawned. In those camps Civilization posted its location notices and since then it has been steadily engaged in perfecting its title. The cry of gold attracted thousands of ambitious and courageous men to the northern placer fields, who, with their followers and descendants, have since exploited the wondrous resources of mountain, forest and plain until Montana, admitted to the Union of States in 1889, is today confessedly the peer of any of them and the envy of all. It is known as "The Treasure State." With a population rapidly approaching 300,000 in number, free from debt, and with all the advantages of a progressive civilization, it proudly challenges comparison of its natural resources with those of any other division of the nation. Of its diversified riches, its industrial progress, its per capita of wealth and production, as well as the blessings of good government, which it guarantees, and of the hospitality of its people and its climate, Montana is naturally proud

and cheerfully and confidently invites investigation by homeseekers and capitalists of the opportunities afforded them within its borders for progress and profit, for moral and educational growth and for the enjoyment of all the benefits of liberty and justice.

From Montana mines since 1860 the precious and base metal production has exceeded the stupendous figure of $1,000,000,000, the placer mining era being credited with a yield of $200,000,000. Since 1880, the output of the single district of Butte has exceeded $500,000,000 in copper, silver and gold, the mines adjacent to Helena, Philipsburg, Dillon and Virginia City contributing the rest of the grand total. The quartz fields of the state are yet in an early stage of development. Whole mountain ranges are yet unexplored. Bonanzas of wonderful richness are yet untouched. Thousands of acres of gold-bearing gravel beds are not recorded. Even in the old mining camps there are numberless opportunities for capital to open new mines and organize new industries, while all classes of the state's population will share in the benefits of the great mining industry.

But the treasure state is not alone a mining state. Embracing an area of 146,000 square miles, only one-third of it may be described as mountainous. The main range of the Rockies extends across the state north and south for an average width of one hundred and eighty miles, while other ranges of less magnitude diversify the surface and give appropriateness to the name of Montana, which in Spanish signifies "Mountainous." Of Montana's total area mountains comprise 26,000,000 acres; farming lands 30,000,000 acres and grazing lands 38,000,000 acres. There are within the limits of the state twenty-five lakes of notable

FALLS OF THE MISSOURI, CASCADE COUNTY

GOVERNOR'S RECEPTION ROOM, STATE CAPITOL

size and great beauty; eighty large rivers and 362 smaller streams. Among the lakes the Flathead is the most expansive and picturesque, being located in one of the most fertile valleys on the continent. Among the rivers may be mentioned the mighty Missouri, the Yellowstone, the Madison, Gallatin and Jefferson, Milk, Musselshell, Powder, Sun, Marias, Poplar, Judith, Big Muddy, Hell Gate and Big Blackfoot and Clark's Fork of the Columbia. In fact Montana may justly claim to be the best watered state in the Union. The tributaries of the larger streams are myriad and thousands of them may be used for irrigation purposes. There is little need for windmills in Montana. The abundance of the water supply emphasizes the attractions of the state for the farmer, fruit grower and live stock breeder. The topography of the country offers much to the inhabitants, for floods, droughts and tornadoes are alike unknown in the new commonwealth.

Montana stockmen and farmers sell their products for more money per capita than those of any other state. In 1903 the cattle shipments exceeded $12,000,000 in value, while the mutton and sheep exported sold for $4,500,000 and 30,000,000 lbs. of wool for as much more, estimating the price of the latter at 15 cts. The beef, mutton and wool exports make the average receipts of the stockmen more than $20,000,000 per annum,

A WINTER SCENE

to which must be added the agricultural and horticultural revenues, making the total, according to a high authority, $35,000,000 per annum. Breeding in all lines of live stock is progressing by the importation of the best blood obtainable. The state now has thirty breeders of pure-bred registered cattle, all the beef breeds being included in the list, and several of the dairy breeds. The live stock industry is just in the beginning of its real development and practical improvement. The state has approximately 1,000,000 cattle and over 5,000,000 sheep. In the matter of dairying, the field is most inviting to practical men, as the state now imports 75 per cent of its butter and cheese. It also imports 50 per cent of its poultry, and 50 per cent of its pork.

Montana as a whole is less subject to extremes of heat and cold than either the Dakotas or Minnesota. The valleys to the west of the continental divide are milder than to the east of it. During some winters the temperature on the west side does not go below the zero point. Immediately east of the divide, as well as west, the temperature is very much modified by the "Chinook" winds which frequently blow from the Pacific, and the beneficial effects of which extend almost to the Dakota boundary line on the east. They appear to modify the temperature beneficially both in the summer and winter. Because of the dryness of the atmosphere even the occasional extreme cold is not severely felt, nor is the warm weather of the summer at all disagreeable. In fact in the summer months Montana is one great pleasure and health resort, while its Indian summers, extending generally well towards the Christmas holidays, are incomparable. Forty thousand square miles of Montana have an elevation of less than 3,000 feet. That area is equal to the state of Ohio, but the Ohio climate is not so good.

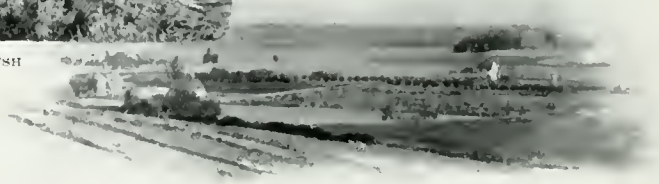
FLATHEAD COUNTY APPLES

AGRICULTURE IN MONTANA.

The agricultural interests of the state are developing rapidly and are likely at no distant date to eclipse the mining industry. During the decade from 1890 to 1900 the farm property of Montana increased in value 143 per cent, while the value of the farm products increased in value 356 per cent. The total number of farms in the state in 1900 was 13,370, an increase of 250 per cent in the decade. The acreage in farms in 1900 was nearly 85 times that reported in 1870. The average size of the farms was 886 acres, of which 14.7 per cent was improved.

Crops are grown in the state both with and without irrigation. In some sections the latter method is followed almost exclusively and with marked success and the area so farmed is increasing rapidly. The deep rich soil is very retentive of moisture and the rainfall, coming during the winter and spring, generally soaks into the ground where nearly the whole of it may be conserved for the use of crops. Irrigation, however, brings larger yields and insures a crop every year. In some valleys in the state, notably in the Gallatin, the Flathead and in the country around Great Falls and in the Judith Basin, from 25 to 30 and sometimes 40 bushels of wheat per acre are obtained without irrigation. Oats often yield from 40 to 60 bushels. On the watered land the yield of wheat reaches 40 and 50 bushels, oats 75 to 100 bushels, barley 50 to 70 bushels per acre.

BEFORE IRRIGATION—SAGE BRUSH



AFTER IRRIGATION—WHEAT

Wheat is grown in all parts of the state and is everywhere a paying crop. On the dry bench lands winter wheat is grown in many places, but on others spring wheat does well, particularly the early ripening varieties. On the irrigated land spring wheat is largely grown. Both soft and hard wheat is raised and both find a ready sale at local grist-mills in the larger valleys. Much of the wheat finds a market as feed for cattle and sheep and in combination with other grains makes an excellent and economic ration. On the average from a cent to a cent and one-half a pound can be obtained for it when used in this way, a return equal to, or better than, the average local market price.

Oats do remarkably well in all parts of the state, particularly on the irrigated farm. They often grow to the height of a man and there are reliable yields reported of over 150 bushels (32 pounds) to the acre. The Montana oat is plump and heavy, generally weighing over 40 pounds to the bushel and sometimes 45 pounds. The usual yield will run from 70 to 100 bushels per acre in the Gallatin valley.

The mining towns of the state furnish an excellent market for the oat crop at prices that usually average a cent a pound. Prices range from 80 cents to $1.25 per 100 pounds. Within the past few years a large demand has arisen for Montana oats in the eastern states for seed. The size and plumpness of the oat enables the dealers to command a ready sale.

Montana is one of the best watered of the arid states. The rainfall of the state varies from an average of 16 inches in the western valleys to an average of 13 inches per year near the Dakota line. The most of this precipitation comes in snow or rain during the winter or spring, and up to early July. Usually July, August and September are without rain, though in many places good crops are successfully grown without irrigation.

The result of this is that if the land is prepared to receive it nearly all the precipitation soaks into the ground, but little runs off. Surface tillage early in the spring prevents the loss of the moisture and nearly all of it can be saved for the growth of crops. It is because of this fact that such large crops can be grown without irrigation in many parts of the state. Summer rain falling on dry, heated soil, penetrates but little into the ground, evaporating quickly, and frequently starts capillary action, which tends to dry the soil as much or more than the rainfall has added moisture.

Peas are found to be a paying crop in all but the higher valleys and are not troubled with bugs as in eastern and more southern sections. Rye is a profitable crop on much of the dryer bench lands and corn does well in many of the lower valleys in the eastern part of the state.

Fodder crops of all kinds do well. Timothy is largely grown all over the state, attaining its maximum crop on the bottom lands under irrigation, yielding three to four tons per acre, but it also does well on many of the bench farms without irrigation.

The native blue-joint is probably the finest hay produced in the state, and recognized by all stockmen as the best possible feed for fattening stock without grain. In some sections, under a rational system of cultivation and irrigation, large yields of very fine hay are produced, yields which warrant the conclusion that this fine grass may find a permanent place in

Montana agriculture. Most of the timothy and blue-joint hay finds a ready market in the mining camps of the state at from $8.00 to $15.00 a ton.

Clover and alfalfa grown mainly under irrigation yield from four to six tons per acre in two and three cuttings. Such yields are reported as far north as Milk river valley, where alfalfa is getting to be quite a paying crop. The Yellowstone valley is the great alfalfa district, six to seven

ORCHARD SCENES IN RAVALLI AND MISSOULA COUNTIES

tons per acre being a not uncommon yield. Alfalfa will grow, however, in nearly every valley in the state, though in some of the higher valleys clover does better if water is available.

On some of the bench lands alfalfa is grown without irrigation and gives two tons and over at one cutting. On the irrigated farms red and alsike clover always yields two crops in the season, the second often

equalling the first in yield. During the past two years attempts have been made to grow alfalfa and clover seed and with a large measure of success. With a little more experience it is believed that the state should supply its own needs in this direction and at considerable profit.

In view of the above facts it is not surprising that the state affords opportunity for the growth of a great variety of farm crops and that they grow remarkably well. In the Bitter Root, Missoula and Flathead valleys on the west, and in the Yellowstone valley to the east, all the hardier fruits of apples, pears, plums and cherries and also the small fruits of all kinds do well and are a paying crop. In these valleys corn also does well. Orchards have been planted and fruit is growing in nearly every county in the state and before many years all sections, it is believed, will produce fruit enough for home consumption.

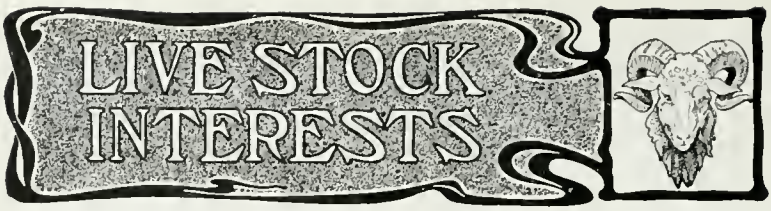
Although the seasons are short, crops grow rapidly in the northern climate because the days are long and the large amount of sunshine gives the energy needed for the rapid growth of the plant. It is Nature's compensation to the northern districts.

Root crops of all kinds do well. Carrots, turnips, rutabagas, mangles and sugar beets, while not as yet grown to any large extent, yield well and are of good quality. The sugar beets contain a very high percentage of sugar. Potatoes do well in all parts of the state, in some places large yields being obtained without irrigation; under irrigation very large yields are reported and the tubers grow to an enormous size. From 500 to 600 bushels per acre are quite common, while 800 to 1,000 bushels per acre under irrigation are credibly reported. The average yield will run from 250 to 400 bushels per acre.

HONEY PRODUCTION.

Honey production is even a smaller industry than poultry or the dairy in Montana, and yet bees do well in many parts of the state and honey finds a ready market. A pertinent illustration of this was in the government station colony at Bozeman. Eight swarms in the spring had increased to twenty in the fall, and over 1,000 pounds of honey was produced. Comment is unnecessary.

A CUSTER COUNTY HERD



MONTANA'S LIVE STOCK INTERESTS.

Cattle raising in Montana has been largely confined to the range, supplemented to an increasing extent in later years by winter feeding on the farm. The most of the open range in Montana affords excellent grazing, except where it is overstocked. Much of Montana receives more rainfall than the arid states to the south and the rains come later in the spring. As a result the country is nearly everywhere covered with a sod, and, under favorable conditions, with waving grass. The dry summers and falls cure the grass, making excellent feed. For many years the country was a cattleman's paradise, as it is yet in some parts, but mainly from overstocking the range a much greater dependence for the future must be placed upon the farm. The cattle business in the future will be a combined ranch and range business. The ranges properly cared for will provide abundant summer feed. The ranch will provide feed that will carry the cattle through the winter cheaply and profitably.

Tests at the government experiment station at Bozeman have shown that Montana feed and climatic conditions will enable the feeder to make profitable gains on his steers in finishing them for market. On a ration of clover hay and not to exceed five pounds of grain a day, a bunch of three-year-old steers gained 2½ pounds per day for 111 days, and produced this gain at a food cost of less than 4½ cents per pound. These certainly are satisfactory gains at a satisfactory price. On an average for three years the station has fattened steers at a food cost of less than five cents per pound of gain made. The corn-producing states of the east can add but little that is desirable to such results.

Large numbers of cattle are now being fed for market on the farms of the state, which afford a profitable market for much of the grain and fodder crops grown.

A ROUND-UP

DIVIDENDS IN SHEEP.

AT SHEARING TIME

A change that is gradually yet surely going on in this western country is a substitution to a greater or less extent of sheep for cattle on the range. The sheep give equal if not better returns; they give quicker returns. They can use range country too rough for cattle, but have no objection to the best. They will live and thrive where cattle will not. The increase in the flocks must be disposed of every year. Here again the Montana farmer finds an excellent opportunity for marketing his surplus crops at a good price. The feeding of range sheep and lambs for mutton has attained to quite large proportions in the state. Probably 300,000 to 350,000 sheep were fed in the state last winter. Through these sheep the farmer has been selling his clover and alfalfa at from $7.00 to $12.00 per ton and his grain at $1.00 to $2.00 per 100 pounds.

During the winter of 1902–3 the Station fed 109 lambs, which cost 2.6 cents per pound, live weight, or $196.20. They were fed 95 days at a food cost of $125.40. The lambs sold for 4½ cents per pound in the local market, giving a return of $456.10, or a profit of $144.50, or $1.32 per lamb.

One hundred and twelve wethers cost, at 2¼ cents per pound, $311.60. At market prices the food cost $156.72. The wethers sold for four cents per pound, or $654.08, giving a profit of $185.76, or $1.66 on each wether.

Figures obtained from several other feeders in this state who handled 1,500 to 2,000 sheep showed a profit after paying market prices for feed of about $1.00 per head on each sheep fed.

Montana has 5,000,000 sheep within her borders, the largest number owned by any state. Large amounts are paid out every year for pure bred and high grade bucks to use on the range. Here again is an opportunity for the Montana farmer, who should produce all this stock. On a Montana farm can be produced as fine a quality of sheep as anywhere else in the United States and the animals being acclimatized are so much better for immediate use on the range.

ANGORA GOATS

ANGORA GOATS.

Within the past few years Angora goats have been introduced into the state and are increasing considerably in numbers. They thrive well either among the brush, along the river bottoms or upon the rocky hill-side, where sheep could not be kept. The climatic conditions of the state seem to be particularly favorable to the production of a first class mohair.

ABOUT HOGS.

The thrifty fields of clover and alfalfa, with the generous crops of grain, make hog production a profitable industry. There is as a rule a good local market. Over 14,000,000 pounds of hog products—ham, bacon, lard and fresh pork is annually shipped into the state. A little co-operation among producers and dealers should make this large market available to the Montana farmer.

On the stubble field, during 42 days of the Station farm, 24 hogs gained about $\frac{3}{4}$ of a pound each, or 874 pounds for the whole lot. The value of this increase in live weight, at $5\frac{1}{4}$ cents a pound, was $46.04.

Experiments made on grain feed, with clover or alfalfa roughage, or with sugar beets, show that a pound of increase in live weight on a growing hog can be made at a cost of from 3 cents to $4\frac{1}{2}$ cents, a result which will compare favorably with any pork-producing area in the United States.

POULTRY PROFITS.

The poultry industry in Montana is yet to be created. On an average over 4,000,000 dozen of eggs and over 3,000,000 pounds of poultry are shipped into the state every year. Often during the winter season eggs go to 35 cents per dozen and in the larger cities strictly fresh eggs at times command 50 cents per dozen. But 25 cents per dozen can be given as a safe average price for the year.

In practically all the farming valleys of the state, poultry can be handled at a decided profit. There is nothing in the climatic conditions that is at all unfavorable to the poultry business and in several ways Montana is more favorably situated than are many of the eastern states.

DAIRY POSSIBILITIES.

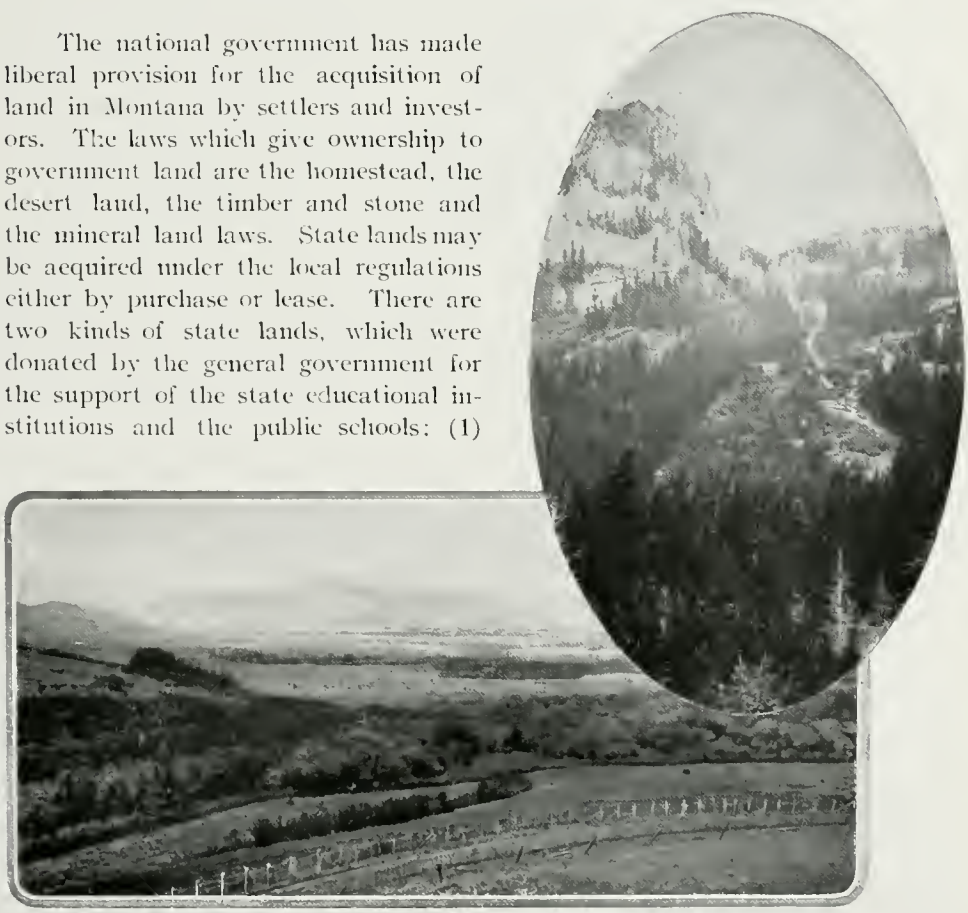
The Montana irrigated farm is as well adapted to the dairy business as any part of Minnesota. Climatically, there are less extremes of heat and cold, the climate is dry, the nights are always cool, the mountain streams throughout the state provide pure, cold water, clover and alfalfa grow luxuriantly and may be cured with all the aroma of the new mown hay. What could be more favorable for the production of dairy products of the highest quality and of the greatest abundance? Yet Montana imports 5,000,000 pounds of butter and 750,000 pounds of cheese annually.

To the dairy farmer Montana offers one of the best local markets to be found in the United States to-day. Irrigation, with the long summer days, gives an abundance of pasture for the summer season, and clover and alfalfa at $5.00 per ton and grain at about 75 to 90 cents per hundred pounds, can but insure a business profitable to the producer. Again with such fodders, cured as they may be in the Montana climate, but a minimum grain ration is needed, generally not more than one-half that fed in the east. Cows have produced over 300 pounds of butter per year on alfalfa alone in winter, with good summer pasture.

There is a ready sale for large quantities of dairy products of good quality even in the country towns all over the state. Good butter seldom retails below 25 cents per pound, and often goes to 30 and 35 cents per pound. Even at 20 cents per pound, with Montana prices for feed, one dollar's worth of food given to a good cow will return two dollars' worth of dairy products.

NATIONAL AND STATE LANDS.

The national government has made liberal provision for the acquisition of land in Montana by settlers and investors. The laws which give ownership to government land are the homestead, the desert land, the timber and stone and the mineral land laws. State lands may be acquired under the local regulations either by purchase or lease. There are two kinds of state lands, which were donated by the general government for the support of the state educational institutions and the public schools: (1)



SCENES FROM THE GALLATIN VALLEY

those over which the government gave the state absolute control and (2) those whose acquisition by the state is conditional upon their reclamation.

Under the homestead act, settlement on a tract of 160 acres, or less, is required for five years, when title passes to the settler without money consideration; or, after 14 months' actual settlement, the title may be obtained by the payment of $1.25 per acre.

Under the desert land act 320 acres may be acquired within three years by the expenditure of $3.00 per acre in improvements, water rights and cultivation, and the payment to the government of $1.25 per acre.

The mineral land laws, which give the right of location to all citizens of the United States, or those who have declared their intention to become such, are also exceedingly liberal in their provisions, and local regulations have been added with a view of encouraging and protecting alike the prospector and capitalist.

The United States land offices in Montana are at Missoula, Kalispell, Helena, Great Falls, Bozeman, Lewistown and Miles City.

The state land office is located at Helena, the board of land commissioners being composed of the governor, the secretary of state, the attorney general and the superintendent of public instruction.

The last official report of the board issued January 12, 1903, stated that "The fiscal year 1901-1902 has proven very satisfactory to the state land department. The records of the state land office show a remarkable increase in the sale and lease of state lands. The state's holdings now amount to 3,020,977.73 acres. Of this amount 304,814.24 acres are timber lands, showing an estimate of 892,297,000 feet of saw timber, and the remainder of 2,716,163.49 acres, are classified as agricultural and grazing in character. The amount of land under lease is 1,784,000 acres, being 65 per cent of the state lands, exclusive of the timber lands, which are not subject to lease."

The amount of lands sold by the state up to the present time is 10,839.76 acres.

The receipts of the state land office are increasing at the rate of about $100,000 per year, the amount for 1902 being $363,548.63. Homeseekers and land investors are just beginning to realize the marvelous productiveness of Montana soil, the extent of the home market for agricultural and range products, the climatic advantages and the educational facilities afforded in every section of the state.

ACQUIRING LANDS IN MONTANA.

The latest report of the Secretary of the Interior gives the following classification of land in Montana:

Surveyed	18,244,326 acres
Unsurveyed	39,511,338 acres
Area Reserved	17,384,134 acres
Area Appropriated	18,323,303 acres

The above table shows that there are in Montana 57,785,664 acres unreserved and unappropriated and therefore open to location under the various land laws of the government. Much of the appropriated land, including the vast tracts apportioned by the general government to the state for the support of the state institutions, may be leased or purchased on easy terms by intending settlers. Naturally much of this state land is the best, as its selection was made with great care by experienced men. The reserved lands, which include the forests, in part, and the Indian reservations, congress in its wisdom may retain for future public uses, such as the protection of the watersheds and the conservation of the timber supply. Yet portions of the Crow and Flathead reservations are at once to be thrown open to settlement by acts of Congress. The two tracts to be segregated contain approximately 1,600,000 acres. Under wise regulations having in view the needs of homeseekers, rather than large landed corporations, this exceedingly rich and productive land will be offered for sale at a low price. It is fertile and well watered for the most part, while the drier sections are easily irrigable and all is capable of producing crops that will astonish even the most optimistic by greatly exceeding the average of the most favored eastern states.

UNITED STATES ASSAY OFFICE, HELENA

For information as to the best means of securing land in any part of Montana, either from the state or federal government, either by location or purchase or lease, the intending investor or homeseeker is advised to correspond with the appropriate state or national officials, noted elsewhere, and carefully to read the various land laws of the government. To save possible trouble and expense it is suggested that the homeseeker, in advance of his family and furniture, pay the state a visit of inspection, critically examining those sections best adapted to the industry in which he would engage and noting the advantages of each.

Satisfied as to climate, fertility of soil, market conditions, educational facilities and general surroundings, the settler, by this preliminary journey, may assure himself future contentment and success and afterwards establish his new home without misgivings. Montana invites inspection and challenges comparison, whether the intending immigrant be interested in mining, agriculture, stock raising or any of the cognate industries of a growing commonwealth.

MONTANA'S SCHOOLS AND CHURCHES.

Montana is justly proud of its public school system. One of the first acts of legislation recorded in the state was for the promotion of education. The need of learning as a basis of good citizenship was kept ever in sight

by the state's law makers, and thus the proudest boast of every citizen of Montana is the excellence of its schools, and the liberality of their support. Only one state in the union has a richer educational land endowment than this young commonwealth. There has always been a unanimity of sentiment as to the question of school maintenance and improvement and neither partisanship nor sectionalism has for a moment interfered with the upbuilding of the educational equipment on the most modern and enlightened system. The public revenues provide ample facilities in the matter of school buildings, apparatus and instruction, and in case of emergency a special tax is provided. The last official school report shows that there are in Montana some 812 substantial school houses, erected at a cost of $7,400,225. The number of pupils enrolled during the year was 41,787 aside from those in attendance at private and parochial schools, numbering 1,816. The average wages paid for instruction was, males $75.38; females, $51.25. These wages have been since somewhat increased, especially in the larger cities. The total amount paid to teachers for the year last reported was $548,662.33, and the total amount paid for public school purposes was $1,411,853.11. The sum apportioned to the various counties for the year was $747,049.96. The receipts from all sources were $1,369,044.08, though the income may be increased or diminished according to the requirements. These figures serve to indicate the strenuous solicitude which the people of Montana display in the management of their school system, but the illustrations of the state's temples of education in these pages, and the evidence of school work in progress in the educational department of the Montana exhibit will give to intending settlers and investors added information on the subject of Montana schools.

HIGH SCHOOL, HELENA

With the building and maintenance of the schools, the religious training of the people has kept regular pace. Throughout the state the various denominations have erected places of worship and in the larger cities costly structures have been reared wherein men of talent and piety descant on things divine. The smallest hamlet has its church, as it has its school. The pioneer days are ended in Montana and Christianity and civilization are predominant.

MONTANA'S TAXABLE WEALTH.

Although in many counties in Montana property is assessed at only about one-half to three-fourths of its actual value, and although mining

companies are assessed only on their net proceeds or profits, a statement and comparison of the assessment tables are of great interest and importance as showing the wonderful growth of the state. The taxable property in 1898, after equalization, aggregated $133,969,515, exclusive of railroads. The same class of property according to the assessment of 1903, also exclusive of railroads, was taxed at $166,910,191, showing an increase in five years of over $33,000,000. Inclusive of railroads the total assessed property valuation in 1903 was $201,852,379.

To show the division and location of the state's increasing taxable wealth the following table is submitted for the several counties of the state for 1903:

ASSESSED VALUATION 1903.

Counties.	Real Estate and Improvements.	Personal Property other than Live Stock.	Live Stock	Total	Railroads other than Gravel beds, Station Grounds, Depots and Roundhouses.	Grand Total.
Beaverhead	$ 2,147,468	$ 644,353	$ 1,413,314	$ 4,205,135	$ 1,128,991	$ 5,334,125
Broadwater	1,021,849	225,480	509,924	1,757,253	607,695	2,364,948
Carbou	1,539,621	664,159	873,225	3,077,005	531,154	3,608,159
Cascade	10,685,679	2,789,111	1,694,737	15,169,527	1,661,273	16,830,800
Chotean	2,007,575	847,005	3,820,588	6,675,169	3,947,581	10,622,750
Custer	1,325,589	745,866	3,539,400	5,610,945	1,035,927	6,646,872
Dawson	781,498	286,480	3,023,791	4,091,769	902,190	4,993,959
Deer Lodge	5,640,669	1,685,251	161,800	7,487,720	577,942	8,065,662
Fergus	2,737,077	1,274,945	3,126,586	7,138,608		7,138,608
Flathead	3,727,118	1,164,758	463,372	5,355,248	3,081,148	8,436,396
Gallatin	5,587,172	1,160,044	1,030,096	7,777,312	1,198,636	8,975,948
Granite	1,156,294	360,232	307,490	1,824,016	561,861	2,385,877
Jefferson	1,486,419	936,992	404,394	2,827,805	1,654,406	4,482,211
Lewis and Clarke	10,885,845	3,764,470	1,091,540	15,741,855	1,411,246	17,153,101
Madison	2,286,082	1,147,526	1,380,171	4,813,779	551,761	5,365,540
Meagher	1,637,915	557,242	1,644,230	3,839,387	177,645	4,017,032
Missoula	5,262,263	1,916,119	615,131	7,793,513	3,893,383	11,686,896
Park	2,763,587	951,973	776,930	4,492,490	968,669	5,461,159
Powell	1,479,273	498,480	716,765	2,693,508	947,812	3,641,320
Ravalli	2,103,806	742,939	558,645	3,405,390	492,825	3,898,215
Rosebud	908,991	270,688	2,019,022	3,198,701	1,266,065	4,464,766
Silver Bow	18,099,725	14,540,262	199,805	32,839,792	1,482,179	34,321,971
Sweet Grass	1,169,593	312,705	1,198,251	2,680,549	744,014	3,424,563
Teton	1,215,232	312,861	1,667,035	3,195,128	1,802,932	4,998,060
Valley	400,795	282,599	1,615,262	2,798,656	2,904,704	5,203,360
Yellowstone	3,333,506	1,124,138	1,962,287	6,419,931	1,910,149	8,330,080
Totals	$91,390,641	$39,206,679	$35,812,871	$166,910,191	$35,442,188	$201,852,379

STATE INSTITUTIONS.

The state educational, penal and eleemosynary institutions of Montana, maintained in part by public taxation, and by a land endowment big enough and rich enough, if combined, to erect into a self-supporting state are as follows:

Agricultural College	Bozeman.
State Normal School	Dillon.
State University	Missoula
State School of Mines	Butte.
State Orphans' Home	Twin Bridges.
State Reform School	Miles City.
Deaf and Dumb Asylum	Boulder.
State Soldiers' Home	Columbia Falls.
State Insane Asylum	Warm Springs.
State Penitentiary	Deer Lodge.

To describe these magnificent institutions in detail, is not necessary. The photographic reproductions of them give a sufficient idea of their size, cost, utility and appearance. Their equipment, course of instruction, discipline and management are as perfect as experience, money and public pride can make them. The educational institutions are open to the free use of the youth of Montana. No young man, or young woman, need go beyond the boundaries of the state to acquire a literary, scientific or professional education equal to that offered in the most noted colleges of the East. The course of study is as complete in every department as human knowledge is capable of preparing, and though the youth of Montana are utilizing this opportunity of acquiring an education without leaving the state, there is plenty of opportunity for the sons and daughters of intending new-comers

COAL IN MONTANA.

Montana embraces a large section of the coal beds which extend along the east slope of the Rocky mountains from Mexico to British America. Bituminous and coking coals predominate. Extensive bodies of lignite and semi-lignite coal are of frequent occurrence and of general use for domestic and railroad purposes. With capital and development the entire demand for coal and coke will be supplied at home, quality and abundance being indisputable. The coal industry represented an investment of $5,000,000.00 in 1900, but the annual increase is rapid and the opportunity for profitable investment is most promising. The chief coal-producing counties are Carbon, Cascade, Valley, Custer, Fergus, Gallatin, Park, Sweet Grass and Flathead, where vast areas of public coal land are yet open to location and lease, or to purchase, at low prices. The coal production in 1901 was 1,442,969 tons and the coke product, from 228 ovens reporting, 57,004 tons. The coke produced from Park county alone is estimated at 60,000 tons for 1904. Cascade county coal exclusively is used for the reduction of ores at the Boston and Montana smelters at Great Falls.

POPULATION, AREA AND COUNTY SEATS.

The census of 1880 credited to Montana a population of 39,159. This had grown to 132,159 in 1890, an increase of 93,000, or 237 per cent, in the decade. The census of 1900 recorded a population of 243,329. The estimated population at present is between 275,000 and 300,000. The enumeration of 1900 gives the population by counties, to which are added the area and name of county seat of each county, as follows:

County.	County Seat.	Sq. Miles.	Pop.
Beaverhead.	Dillon	1,491	5,615
Broadwater	Townsend	1,247	2,611
Carbon.	Red Lodge	2 172	7,533
Cascade	Great Falls	2,764	25,777
Choteau.	Benton .	16,019	10,766

County.	County Seat.	Sq. Miles.	Pop
Custer (a)	Miles	20,490	7,891
Dawson	Glendive	13,227	2,443
Deer Lodge (b)	Anaconda	4,225	17,393
Fergus	Lewistown	8,928	6,937
Flathead	Kalispell	8,419	9,375
Gallatin	Bozeman	2,583	9,553
Granite	Philipsburg	1,543	4,328
Jefferson	Boulder	1,585	5,330
Lewis and Clarke	Helena	2,572	19,171
Madison	Virginia	4,443	7,695
Meagher	White Sulphur Spgs.	4,253	2,526
Missoula	Missoula	6,385	13,961
Park	Livingston	2,788	7,341
Powell	Deer Lodge		
Ravalli	Hamilton	2,771	7,822
Rosebud	Forsyth		
Silver Bow	Butte	1,017	47,635
Sweet Grass	Big Timber	2,887	3,086
Teton	Choteau	7,588	5,080
Yellowstone	Billings	3,710	6,212
Valley	Glasgow	13,368	4,355
Crow Indian Reserve		5,475	2,660
Total		145,310	243,329

Note—a includes Rosebud; b includes Powell.

LIBRARIES IN MONTANA.

There can be no better gauge of the public intelligence of a state than its number of public libraries and the patronage extended to them by the people. Montana is justly proud of the number and character of its books.

MAIN ROOM, MONTANA HISTORICAL LIBRARY

Miles City, Bozeman, Dillon, Kalispell, Great Falls and Missoula, all have extensive libraries supplied by Mr. Carnegie and supported by public taxation, while Helena, Butte, Anaconda, Deer Lodge, Virginia City and Billings, and other cities are equally well supplied through private beneficence, supplemented by public taxation, as elsewhere noted. The Butte library building alone cost $100,000, and other cities of the state have been no less liberal,

proportionately, in equipping and supporting their library institutions Trained librarians are in charge of all.

The total number of bound books and pamphlets in the state is officially given as 227,589, exclusive of school and private collections. But few states in the union show as many books in proportion to the population and none shows greater increase. An encouraging and noteworthy feature of Montana library work is the high class of books in demand, the number of scientific, historical and biographical works called for attesting a high average of intelligence.

It is worthy of record also that the first legislative assembly of Montana made provision for the establishment of a school library in the act providing for a public school system.

That body also brought into existence the institution which has since developed into the state historical and law library. This is composed of two departments—the law and the historical and miscellaneous department, each controlled by its own board of trustees and having its own librarian. The board of trustees of the law library consists of the justice of the supreme court, the state auditor and the secretary of state. The trustees of the historical and miscellaneous library are appointed by the governor and confirmed by the senate.

The historical and miscellaneous department possesses about 30,000 books and pamphlets, several hundred rare old volumes and maps, about 75 oil paintings and portraits, many photographs of citizens and early settlers, all the papers of the state from 1864, comprising nearly 3,000 bound volumes, journals and manuscripts. The historical library occupies handsomely furnished quarters on the basement floor in the northwest wing of the new capitol building. The museum is in the corridor on the same floor and comprises specimens of the flora and fauna of the state, minerals and metals and a splendid Indian collection.

The law department is now domiciled in its finely fitted up and arranged quarters on the main floor of the capitol, conveniently near supreme court chambers. It contains upwards of 12,000 volumes and pamphlets, and is universally acknowledged to be one of the best and most complete and valuable law libraries in the northwest. Both libraries are installed in metal furniture and have modern improvements for library work, with well trained librarians in charge. The historical department has issued four volumes, the fourth devoted to a description of the dedication exercises of the capitol, and pronounced a work of no little historical value.

THE WOMEN OF MONTANA.

No book descriptive of the development and stability of Montana would be complete without recognition of the women of the state. In the early days they shared the hardships and dangers of the pioneers. Later they encouraged the state-builders in the matter of moral and educational growth. They helped educate their sons and daughters into progressive and patriotic men and women and now that Montana enjoys many of the

blessings of civilization, the women of the state are foremost in promoting charitable, religious and educational work.

Most of the teachers in the public schools are Montana women. In every community of the state women's clubs are doing their appointed work. In April of this year thirty-one such organizations met in state convention, the exercises and proceedings showing the wonderful advancement achieved in the field of public morals and intellectual usefulness.

THERMAL SPRINGS.

Probably in no division of the union are there so many mineralized thermal springs as in Montana. Prior to the advent of the pioneer their medicinal and curative properties were known to the Indians, who freely used the water for drinking and bathing purposes. Indian lore contains many wonderful stories of the cures worked by the magic of the mineral springs. In pioneer days the hunters and prospectors made frequent pilgrimages to the various hot springs of the state.

The water possessed health-giving properties unknown to the pharmacopœia and in the absence of regular physicians it was freely employed in treating many diseases that erstwhile afflicted the argonauts.

WHITE SULPHUR SPRINGS, MEAGHER COUNTY

In more modern days the springs in many parts of the state have become immensely valuable and at some costly hotels have been erected where guests may utilize the waters for the cure of most of the ills that flesh is heir to.

Among the most noted of these resorts are: Hunter's Hot Springs and Chico Springs in Park county, Boulder, Alhambra and Pipestone Springs in Jefferson county, Potosi Springs in Madison county, Broadwater Springs in Lewis and Clarke county, Gregson and Warm Springs in Deer Lodge county, and White Sulphur Springs in Meagher county.

Some of these places offer attractive opportunities for the investment of capital by hotel men and physicians, as the waters, medicinally, are in no way inferior to the famous Hot Springs of Arkansas, or any others of reputation.

YELLOWSTONE NATIONAL PARK.

Who has not promised himself a visit to Yellowstone National park? It is Nature's storehouse of wonders, surpassing in picturesque phenomena all other scenic resorts of the world! It can only be reached by rail or by comfortable roadways from Montana, and for that reason, though geographically, it belongs mainly to the state of Wyoming, it has always been

SCENES IN YELLOWSTONE PARK

claimed as one of this state's many attractions. Under military control access to the varied marvels of the reserve has been made easy, roads having been constructed, hotels erected, the streams stocked with fish and rules for the preservation of game vigorously enforced. The hot water geysers, the mud springs, the petrified forests, the soda and sulphur mountains, the Yellowstone lake, the great mountain gorges and peaks—these are but a few of the manifold attractions and wonders of the park. No pen can describe, no imagination can conceive the character, extent and variety of Nature's eccentric handiwork in Wonderland. The wild game, now protected by law, is one of the chief attractions to the thousands of visitors who tour the park each summer. It contains several thousand antelope and deer, which are rapidly increasing in number. Mountain sheep, once almost extinct in the park, have come back to the high ranges. Many bear are to be seen near the hotels. The wild buffalo herd now numbers over fifty head.

During the season of 1903, over 13,000 tourists visited the Yellowstone reserve and the number will increase yearly, as no part of the world can offer equal allurements. The Northern Pacific railroad from Livingston now reaches the city of Gardiner, which is but five miles from Mammoth Hot Springs hotel, in the park, while the stage line from Monida on the Oregon Short Line railway, affords pleasure seekers a magnificent ride in the summer months.

LUMBER AND TIMBER CUTTING.

In none of the states of the Union is there a more thickly timbered region than that part of Montana which includes and lies west of the Rocky mountains. Much of it is still open to location under the timber regulations, while the remainder is included in the government reserves, the state lands and the railroad land grants. With the exception of the government

reserves, therefore, the great bulk of this magnificent domain is open to location, lease or purchase, and presents an inviting field for capital in lumbering, in the manufacture of doors, sash and shingles, or in the cutting of mining timbers. White and yellow pine, red fir, cottonwood, white spruce, tamarack—all these abound within this great timbered section of the state. In Missoula, Ravalli and Flathead counties the forests furnish some of the most important sources of income to the people. The production of the saw-mills in these counties has averaged during the past few years 230,000,000 feet per year. An official estimate of the amount of merchantable timber (board measure) within the timber reserves of the government in the state is 14,974,800,000 feet, to which may be added the estimated amount within the state lands of 912,000,000 feet, making a total of 15,886,800,000 feet, enough to last seventy years at the present rate of consumption, according to the estimate of the commissioner of agriculture, labor and industry. Eighty-six saw-mills reported, but the saw-mill business is not overdone, as every year witnesses an increase in the demand.

HAULING LOGS IN FLATHEAD COUNTY

In Missoula and Ravalli counties are three mills whose combined daily product is 535,000 feet of lumber. Flathead county has immense forest wealth. There many mills are employed in supplying the demand for lumber and at the same time clearing vast tracts of land of wonderful richness for agricultural purposes. Madison, Beaverhead and Lewis and Clarke counties contain large forest acreage.

RAISING HORSES IN MONTANA.

No state in the union possesses better facilities for horse-breeding than Montana. The soil, the climate and the native grasses and grains give to the Montana-bred horse the bone, hoof, lungs and endurance that characterize the perfect equine. Experiment has proved its superiority.

Several of the largest and best equipped horse-breeding establishments in the United States are located in Montana, and both trotting and running stock of marvelous speed and stamina has helped to spread the fame of the Montana horse.

The record of every race track in the country emphasizes the quality of this state's thoroughbreds. The first and second horses in the futurity race of 1903, Hamburg Belle and Leonidas, were Montana bred. The trotting circuits show equally good results.

In the Spanish-American war Montana furnished more cavalry horses than any other state. Not only in racing stock, but in the breeding of work and carriage horses Montana excels. The best strains of blood have been introduced and the result is a high average of style, weight and endurance.

There is always a market for good horses and certainly no state in the union presents such facilities for the raising of animals that will command top prices in the market as Montana. There are now estimated to be 350,000 horses in the state.

HORTICULTURE.

The number of fruit trees in Montana approximates 2,000,000. The principal fruit-producing districts are in Ravalli, Missoula, Flathead,

A YOUNG ORCHARD IN MISSOULA COUNTY

Madison and the counties of the Yellowstone valley. The soil and climate are admirably adapted to the raising of fruit of good size and fine flavor, apples particularly being a certain and profitable crop. The usual insect pests are unknown so far, and the protective laws of the state are stringently enforced. The apple production for 1903 was 350,000 boxes. One orchardist shipped 2,800 fifty-pound boxes from 200 trees. Crabapple trees flourish amazingly, while cherries, pears, plums and the small fruits such as the strawberry, raspberry, blackberry, gooseberry and currant produce abundantly, the quality being unsurpassed. The grape and peach have not been cultivated with encouraging results, but the Montana strawberry is a joy forever. The horticultural exhibit from Montana at the World's Fair illustrates the size, flavor and keeping quality of Montana fruit, and an inspection thereof will prove of much interest.

HUNTING AND FISHING.

On account of its bounteous supply of grass and water, Montana was once the habitat of countless thousands of herbivorous game. The pioneers tell of vast herds of buffalo, deer, elk and antelope which peopled the valleys and plains between the state boundaries. The wild grasses grow luxuriantly, being waist high in the valleys and uplands. With the advance of civilization the game has been crowded back to the mountainous regions where black and grizzly bear, mountain goats, some moose, and a considerable number of the cat family are to be found. Those animals whose extinction was threatened are protected by law, but in the open season the hunter may find plenty of royal sport. Feathered game is abundant, grouse, sage hens, ducks and geese and some quail are numerous about the lakes and rivers. There, too, is the angler's paradise. All over Montana the streams abound with mountain, rainbow, eastern brook and salmon trout, grayling, whitefish, etc. Those streams and lakes in which the supply of fish was diminished, have been re-stocked from the government fish hatchery of Bozeman. The angler's art may be plied all the year 'round.

SPECKLED BEAUTIES

THE RAILROADS.

Three great transcontinental railroads, having many branch lines, give Montana connection with the world of commerce, and connect every important city and county in the state. The Northern Pacific crosses the

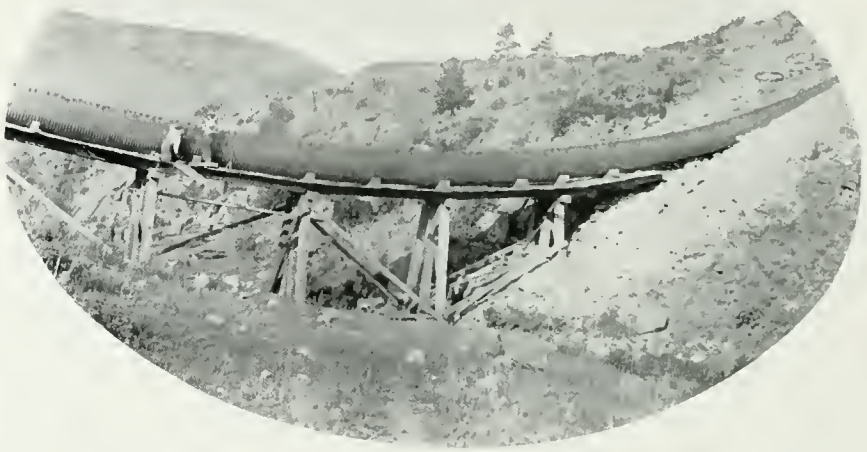
state from east to west, a little south of the central line, and connects Miles City, Billings, Livingston, Bozeman, Butte, Anaconda, Helena and Missoula. The Great Northern parallels it about 200 miles north. From Havre in Choteau county the latter has a south branch, the Montana Central, connecting Great Falls, Helena, Butte and Anaconda, as well as a branch from Great Falls to the Canadian Pacific. The Oregon Short Line, extending north from Ogden and giving Butte a connection with the Union Pacific, also unites Butte and Anaconda. The Montana railway company has completed a line from Lombard, on the Northern Pacific, near Helena, to Lewistown in Fergus county. The Burlington system connects with the Northern Pacific at Billings, thus reaching all important points in the state. Every county seat in Montana, except Teton, has one or more transcontinental railroad connections.

PROGRESS AND PROSPECTS OF IRRIGATION.

For the first twenty years of its history Montana was distinctly known as a mining country and it is still chiefly noted for its mineral production. The great cost of transportation confined the rancher to the home market until the advent of the railroads. Under these conditions agriculture was naturally very limited in extent. When railroads were built enterprising citizens proceeded to stock the great ranges, with their abundance of nutritious grass, and Montana became noted as a great range country. Until recently no provision whatever was made for the feeding of range stock during any portion of the year.

About 1880 placer mining yielded place to the development of the great lodes, or ledges of gold, silver, copper and lead-bearing ores. This character of mining gave more stability to enterprise and the permanent settlements which grew up furnished a more substantial market than had hitherto been enjoyed by the ranchmen, with the result that an impetus was given to agriculture. From about that date three great industries worked along together, to-wit: Mining, the range stock business and the growth of agricultural crops. As water for irrigating purposes was a prime prerequisite to the establishment of a ranch, and as most of the early settlers were possessed of limited means, it was but natural that the bottom lands upon which water could be turned with least expense, were first taken up. It being easier to divert the waters from small streams with low banks than from large streams with high banks, the first settlers located adjacent to small streams from which water could be most easily appropriated. All the available water in the small streams soon vested in private ownership, and where, as frequently occurred, the appropriations exceeded the volume of available water in a given stream, litigation and controversies over the use of the waters became frequent, vexatious and expensive.

Notwithstanding all the difficulties encountered agriculture became thrifty and, in the main, the farmers or ranchmen have been prosperous. But even up to the present time the development of irrigation has been restricted largely to the individual effort. Diversions of water have been generally from the small streams, where ditch construction is simple and inexpensive. A cursory glance at the map will disclose the splendid water-ways with which Montana is blessed. West of the main range of the Rocky mountains the eastern headwaters of the Columbia furnish an abundant supply of water in strong and never-failing streams. East of the range the Missouri river with its great tributaries, the Yellowstone, the Gallatin, the Madison, the Jefferson, the Sun river, the Marias, Teton and Milk rivers, constitute a series of inexhaustible sources for extensive irrigation. These large streams usually flow through canyons, passes or defiles in the foothills of the mountains and thence through deep depressions, rendering the task of diverting water in quantity for irrigation beyond



SYPHON FOR CARRYING WATER UPHILL FOR IRRIGATING

the first bottom lands one of great difficulty and large expense. With such conditions it is quite apparent that individual effort cannot successfully cope. The slow development of irrigation enterprises rendered it impracticable for private companies to find satisfactory investments in the construction of adequate canals and reservoirs where the payment of interest and the repayment of principal was dependent upon the slow processes of community development. In the nature of things several years must elapse between the commencement and completion of large canal and reservoir undertakings. Such years of expensive construction without any immediate income made it impossible to provide for the payment of interest on bonds, and even after the completion of the enterprise, returns could not be made sufficiently rapid to meet the requirements of the investment without so far oppressing the settlers for cash payments as to imperil

their success in building up homes. Thus it was that, after the first bottom lands along the streams which could be readily irrigated by individuals or small associations had been taken up, the larger enterprises, involving millions of expenditure, stood in abeyance. It therefore followed that, since no settler could maintain himself upon a piece of land without a water supply for irrigation and domestic purposes, when all land for which water was readily available had been taken up, the expansion of settlement ceased. This accounts for the fact that between 1890 and 1900, the increase of settlers on the public domain in Montana fell off noticeably. A great economic problem was here presented, not only to the people of Montana, but to all the arid region, and, indeed, to the people of the country at large. Mighty streams of water were flowing unchecked down the rivers to work destruction at times in the valleys below, while millions of acres of land capable of being made highly productive by the use of such waters remained as the Creator left them. These conditions led to an effort in which the people of Montana united with their neighbors similarly situated to induce the general government to aid in the reclamation of the arid lands. This effort first found expression in repeated appropriations by the government for surveys, stream measurements, and calculations as to available water, quality, and extent of land susceptible of irrigation, and approximate cost of construction.

With the data accumulated through such investigations, in the course of years the 57th Congress proceeded to the consideration of the subject in a serious and intelligent manner. The deliberations of that body resulted in the passage of an act entitled "An Act appropriating the receipts from the sale and disposal of public lands in certain states and territories to the construction of irrigation works for the reclamation of arid lands," which act was approved June 17th, 1902. Montana is one of the states named in the act, which provides, in effect, that beginning with the fiscal year ending June 30th, 1901, all moneys received from the sale and disposal of public lands in the states and territories named, including the surplus of fees and commission in excess of allowances to registers and receivers, excepting the five per centum of the proceeds of the sales of the public lands set aside by law for educational and other purposes, shall be reserved, set aside and appropriated as a special fund in the treasury to be known as the "Reclamation Fund" to be used in the reclamation and survey for and the construction and maintenance of irrigation works for the storage, diversion and development of waters for the reclamation of arid and semi-arid lands in the states and territories named. The actual cost of reclaiming the land is made chargeable thereto and provision is made for the payment of the same by the land owner or entryman in annual installments on such terms as to render it practicable for the settler to meet the requirements of the law in that particular. Lands can only be disposed of to actual settlers and in quantities not exceeding 150 acres in any case.

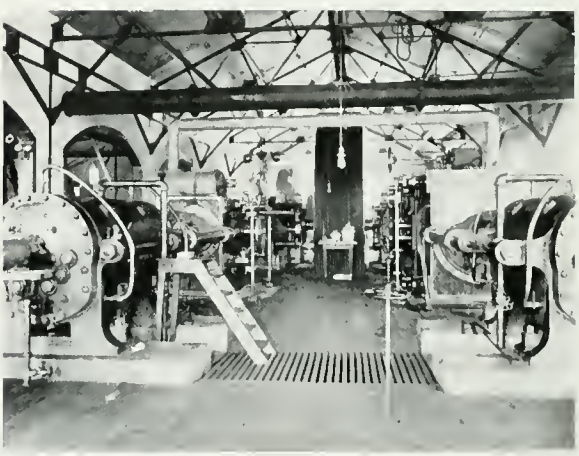
Upon the fertile fields to be made available by this extensive system of irrigation 1,000,000 people can be sustained in comfort on the lands in Montana now arid and useful only for range purposes.

METAL PRODUCTION

MINES AND MINING.

During successive periods of its history since 1862, Montana has led all the states in gold, silver or copper production. At present the total value of its base and precious metal output exceeds that of any other state. From 1881 to 1901 the value of the state's metallic production (figuring silver at its coinage value) was as follows:

Gold	$ 77,139,739
Silver	350,796,364
Copper	361,110,718
Lead	12,734,356
	$ 801,781,177
Gold product from 1862 to 1881 (Est.)	200,000,000
Total	$1,001,781,177



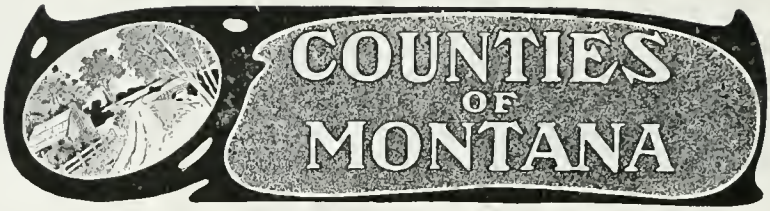
AIR COMPRESSOR PLANT, NEVERSWEAT MINE, BUTTE

The state's production in 1902 was: Copper 288,903,820 lbs.; gold, $4,400,000, silver, $15,200,000 (coinage value), a total exclusive of lead, and figuring the copper at an average price of 12 cents, of $53,268,458. For the year 1903 the output approximated $50,000,000, the small reduction being due to a shut-down of important interests for several weeks in that year.

Montana is beyond dispute the richest and most promising mining state in the union and will so continue. Under the various county headings

the great mining and reduction enterprises will be found described. All counties located in the mountainous regions of Montana possess mineral wealth, developed or undeveloped, of vast extent and value. The most important are Silver Bow, Lewis and Clarke, Madison, Jefferson, Granite, Beaverhead, Park, Flathead, Fergus and Meagher. In some of these the greatest mining operations in the world are conducted. The Amalgamated company, with its auxiliary concerns at Butte, owns the richest properties ever opened, and its advent marked a new era in the history of Montana. Employing 15,000 men and distributing almost $20,000,000 annually among the business and labor interests of the state, it has proved to the world what capital can accomplish for its own and the public prosperity in the mining field. Other concerns in Silver Bow, if less gigantic, are equally prosperous and adding in due proportion to the public weal, notably the Clark, the Heinze, the Pittsburg, the Alice and other enterprises. Dividend-paying concerns are operating in all the mining counties. To the prospector no less than to the capitalist the mining field is open and inviting. On every hand are opportunities to discover, locate, lease or purchase mines of copper, silver and gold. Courage and industry insure success in Montana mining districts. The old mines are still rich—the new ones beckon to the prospector who has money enough to sink a shaft. In Silver Bow, Madison, Granite, Jefferson, and the other mining counties, nature has done everything but extract the ore and coin the metals into money. That Montana is now producing between $50,000,000 and $60,000,000 per annum and that its copper mines alone yield one-half the country's copper product, are facts which must arrest the attention of the mining world and stimulate earnest and intelligent investigation of the mining resources of "the treasure state."

PRESIDENT ELLIOTT OF THE N. P. R. R. AND PARTY OF VISITORS IN A STOPE AT 2000-FT. LEVEL, ANACONDA MINE, BUTTE



BEAVERHEAD COUNTY.

MONTANA STATE NORMAL SCHOOL, DILLON

Beaverhead county, located in southern Montana, and having an area of 4,600 square miles, of which the greater part is mountainous and generally mineralized, is one of the oldest settled counties in the state. The lands along the courses of the mountain streams are remarkably fertile, while the bench lands are covered with a thick growth of native grasses that account for the size and weight of live stock raised in that vicinity. The principal water courses are the Beaverhead, Big Hole, Red Rock and Blacktail and their tributaries. Along these streams and in the higher valleys the soil is a sandy loam from one to eight feet deep. Farming and stock

LADIES' DORMITORIES, MONTANA STATE NORMAL SCHOOL, DILLON

raising are the principal industries of the people. Much rich land is yet open for location, for purchase or lease on easy terms. The fattening of cattle for the public market is an important industry. Among the native grasses which grow luxuriantly in Beaverhead are blue-joint, timothy, red top, bunch, and wild clover, some of which are as good as grain for fattening purposes.

CARNEGIE FREE LIBRARY, DILLON

There are many excellent locations for reservoirs and canals, where large areas of fertile land may be brought under water, but the cost is beyond the reach of individual settlers and must be met by co-operation. Improved lands with water rights may be purchased from $10.00 to $50.00 an acre. The county contains several productive mining districts, including the old placer mining camp of Bannack, where dredging for gold has been profitably conducted. At Glendale the mines and reduction works of the Hecla company are located. It has a large dividend record. The county contains several of the richest silver-lead mining districts in the state, where fortunes await the men financially able to develop them.

PUBLIC HIGH SCHOOL, DILLON

Dillon, the county seat, is one of the most attractive and healthful towns in the state; it is located in the center of the Beaverhead valley, on the line of the Oregon Short Line railroad, and is an important wool-shipping center. Costly school houses and other public buildings are the just pride of the people. The state normal school, one of the best equipped educational institutions of Montana, is there located. Dillon has a growing population of about 2,000 people and is one of the most prosperous cities in the state.

BROADWATER COUNTY—TOWNSEND.

Broadwater county, while one of the smallest counties in the state, is one of the richest in natural resources. It lies chiefly in the Missouri valley, one of the first localities in the state to be settled, and ranks next to the Gallatin valley in the quantity of its agricultural products.

The county is almost entirely surrounded by the high ranges of the Belt and Elkhorn mountains. This natural condition, combined with the fact that the Missouri river flows through the central part of the valley,

insures ample water supply for irrigation purposes. A great many home-seekers are taking advantage of the rich state and government lands still open to settlement in this region and their close proximity to the home markets furnished by the cities of Helena and Butte. There is plenty of room for all.

The farmers of Broadwater county have adopted the "community of interests" plan of operation and by the organization of stock companies among themselves have raised the money necessary to construct three large irrigating canals from the Missouri river; also to build flouring mills and creameries in their midst, thus securing to themselves all the profits generally going to the middle men.

All kinds of agricultural products, excepting Indian corn, are produced in great abundance; also apples, pears and all small fruits. The soil is deep, rich and very fertile. The climate, owing to the low elevation of the valley, is very mild and pleasant, with no violent storms at any season of the year.

PUBLIC SCHOOL, TOWNSEND, BROADWATER COUNTY

Townsend, the county seat, is located in the geographical center of the county. It is a thriving, busy town of 1,500 people, situated on the main line of the Northern Pacific, close to the Missouri river. It has electric light, telephone exchange and water system, two banks, two newspapers, four churches, opera house, auditorium, five public school buildings and a free, graded high school.

In Broadwater county are old historic Diamond city and Confederate gulch placer districts, which rank next to Alder gulch in the amount of placer gold produced during the sixties.

Considerable quartz mining is being carried on in the mountains surrounding the valley. At Winston are located the famous H. & H. and East Pacific mines, which have produced several millions in gold and silver. Hassel is another thriving mining center and has several active, producing mines. In the vicinity of Tosten extensive veins of high grade bituminous coal are being profitably worked.

The heavy live stock interests of the county, consisting of cattle, horses, sheep and hogs, constitute a large factor in the prosperity of Broadwater.

CASCADE COUNTY AND CITY OF GREAT FALLS.

Lying between the rich counties of Fergus and Lewis and Clarke and sharing liberally in the resources that distinguish both, is Cascade county, having an area of 2,600 square miles and divided into two equal parts by the Missouri river. Agriculture, stock raising and mining are

its chief industries. The soil is extremely productive, the cereal crops being among the largest per acre recorded in the northwest. Barley of export quality is raised, while the wheat is unsurpassed, the flour product having driven out competing brands from other states. A grist-mill having a daily capacity of 2,500 bushels furnishes a home wheat market. Land in the Missouri and Sun river and other valleys, brought under irrigation, is very profitable, while a vast acreage of equal availability awaits only the completion of irrigating canals, when it will insure homes and comfort to many thousands of incoming settlers. There is fine land for half a million farmers in the upper Missouri valley, with irrigation. The Pacific states offer nothing better. The cattle and sheep interests are extensive, summer and winter ranges being unexcelled. The cattle and wool shipments are very large.

CARNEGIE FREE PUBLIC LIBRARY, GREAT FALLS

HIGH SCHOOL, GREAT FALLS

Great Falls, the county seat of Cascade county, is the third city of the state in size and importance, having a population of 14,000. It is called the Minneapolis of Montana, because of the vast water power of the falls of the Missouri adjacent, estimated at 350,000 horse-power within the city limits alone, though the river has a fall of 514 feet within ten miles of the city. Great Falls is in all respects a modern American city, beautifully situated on the river banks, well built, thoroughly sewered, healthful, progressive, prosperous.

THE BOSTON AND MONTANA SMELTER.

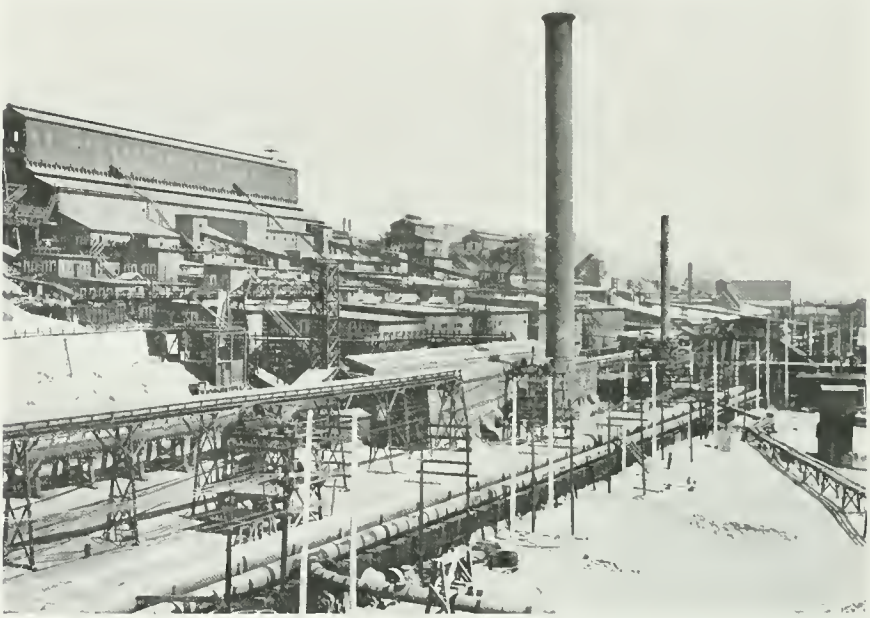
Across the river is located the concentrating, smelting and electrolytic refining plant of the Boston & Montana company, whose mines are at Butte. The ore, being divided into first and second class, the latter is treated by six processes as follows:

1st.—Concentration. The ore is crushed and worked with water on jigs and other machines. This eliminates a large part of the quartz and

granite gangue, as "tailings," and the product is about 40 percent weight of the original ore; that is one ton gives four-tenths tons of concentrates, the tailings being washed away.

2nd.—Calcination. In this process the sulphur is reduced from 35 percent to about 8 percent and much of the iron pyrite which forms an important part of the Butte ores is converted into oxide. A ton of concentrates gives eight-tenths tons of "calcines." At the end of this process the original crude ore is down to .32 tons.

3rd.—Smelting. Reverberatory furnaces are used, and a large part of the iron combining with what siliceous gangue was left in the concentrates from the first process, forms a slag, which is thrown away, and the copper



BOSTON AND MONTANA SMELTER, GREAT FALLS

is then in the form of matte, containing about 50 percent copper, 25 percent iron and 25 percent sulphur. One ton of calcines has made twenty-five-hundredths tons of matte in this treatment, so the original crude ore is down to .08 tons.

4th.—Converting. The matte is tapped out of the smelting furnaces into ladles, and electric cranes transfer the molten matte into converters, similar to those used in the Bessemer steel process, and air is blown through the charge. The effect is to burn the sulphur and convert the iron into slag, which can be skimmed off. The product contains 99 percent copper, the gold and silver and some sulphur and oxygen being left in the metal, and also minute quantities of impurities.

By this process one ton of matte gives practically five-tenths tons of metal and the original one ton of concentrating ore is reduced to .04 tons of copper, which equals 80 lbs., and this is equal to 4 percent of

the original ton. In other words, it has taken 25 tons of crude ore to make one ton of copper.

5th.—Electrolytic refining. The converter copper is cast into slabs about three inches thick, called anodes, and by the use of an electric current the impure metal is dissolved and deposited in a pure condition as cathodes. The gold and silver in the original ore has remained with the copper through the four preceding steps, and is now found in the bottom of the electrolytic tanks as a rich "mud," or residue, which is subsequently separated and sold to eastern refineries.

6th.—Melting and casting. The cathodes are taken to reverberatory furnaces and melted. As the copper absorbs a little sulphur from the coal gases, and this element is deleterious, it must be eliminated. This is done by "rabbling" or blowing air into the molten metal, but in this treatment some oxygen is absorbed, which is in turn driven off by "poling," that is, green spruce poles are held in the charge until the oxygen is reduced or practically all driven off. Charcoal is then thrown on to prevent reoxidation, and the copper is dipped out and cast into the shapes required—wire bars for the wire mills, cakes to be rolled out into sheet copper, or ingots for casting purposes.

COURT HOUSE, CASCADE COUNTY

The capacity of the electrolytic refinery is about 4,500,000 lbs. of copper per month. This does not take all the products of the works, the rest being shipped as pig copper and refined in the East.

There are 22 McDougall calcining furnaces, 5 reverberatories, with 26 gas producers, 5 blast furnaces and 12 converters. The capacity of the plant is 3,500 tons of ore per day. Ten percent of the ore sent to the smelter is first class and does not require concentration. In no other smelter in the state is gas used for smelting ore.

Cascade is the second coal mining county in the state. At Sand Coulee and Belt large plants are in operation and the bulk of the product goes to the B. & M. smelter and the city of Great Falls. The Montana Central, a branch of the Great Northern, crosses the county, while another branch connects Great Falls with the Canadian Pacific.

CARBON COUNTY.

COURT HOUSE, RED LODGE, CARBON COUNTY

Carbon county, containing 2,500 square miles, lies to the southeast of Park and Sweet Grass counties and is characterized by the same physical conditions. It is, however, exceptionally favored in its bituminous coal deposits which are simply enormous. They have already been largely developed and are improving in richness and extent. Cereals, fruit and alfalfa flourish. The county is rapidly filling up and its hundreds of thousands of acres of rich soil are furnishing homes and farms to vast numbers of incoming settlers. The county is well watered and its irrigation facilities are excellent. It will be a great cattle and farming county.

The city of Red Lodge is the county seat of Carbon county; it is a busy, productive and prosperous place, splendidly located in the midst of one of the richest sections of the state. The city is well built and possesses all modern conveniences. It is here that the great coal mines of the Northern Pacific railway and other companies are located, and it may be truthfully stated that no other portion of the Union offers a better field for the investment of capital and the securing of desirable land than is offered by this section of Montana. One company alone employs more than 500 coal miners and the present coal supply must inevitably be largely increased in order to meet the demand which is constantly growing.

COAL MINE, RED LODGE, CARBON COUNTY

CHOTEAU COUNTY.

Choteau county, containing 15,380 square miles, embraces part of the greatest stock-growing country in the world and offers homes to 100,000 settlers. From the north and west the Milk and Marias flow

across its borders, watering with hundreds of tributaries the fertile soil of that region. From the southwest the Missouri will afford the same service to the southern portions of the county. The vast plains are wind-swept and generally clear of snow in the winter time. There, too, the chinook, a warm western wind is frequent, melting what snow there may be and enabling the stock to feed during the winter months, though cattle and sheep growers generally have on hand a supply of hay for emergencies. In all this country of the upper Missouri plateau, spring weather comes much earlier than in the same latitude of the eastern states, and farm operations in the fine valleys and on the bench lands often begin as early as February. This is owing to the regular winds that sweep the fall-plowed fields bare of snow or to the stimulating effects of the earlier chinooks. Fields thus worked are green with growing grain before the snow has melted in the Dakotas, while in the cattle regions new grass is fattening the stock prior to the rains of May and June. With these advantages on non-irrigated lands the use of water for irrigating will make a farmers' paradise of northern Montana. Nowhere is there a better opportunity for homeseekers to acquire fine farming lands at a minimum price. The near wheat fields of Manitoba offer fewer advantages to the agriculturist than does the valley of the upper Missouri with its rich, expansive prairie lands. Wheat, oats and barley succeed admirably. The leading hay crops are blue-joint and timothy. The bunch and other wild grasses grow in rank profusion, and some of them curing on the stalk, serves to explain why the cattle in Northern Montana weigh from 100 to 150 pounds more per head than the range cattle of other states.

PUBLIC SCHOOL, BENTON, CHOTEAU COUNTY

Benton, formerly the head of navigation on the upper Missouri, is the county seat. It has excellent schools, large business establishments and fine public buildings. It was once famous for its Indian trade. Its population is about 600. It is one of the richest little cities in the world because of its stock interests. The county is traversed by the Great Northern railroad.

GOING TO MARKET.

CUSTER COUNTY.

HIGH SCHOOL, MILES CITY, CUSTER COUNTY

Custer county long enjoyed the distinction of being the largest in the United States. It has since lost something in size, but nothing in quality, its area now being nearly 20,000 square miles. Its chief water courses are the Yellowstone, Powder and Tongue rivers. It is a great cattle country and has many sheep. Its river valleys contain much fine agricultural land, which in time will be irrigated and made productive, but at present its cattle interests are paramount. Near Miles City, however, important farming operations are conducted and much hay is grown. Fruits and melons of particularly fine quality are also produced. Miles City, the county seat, is one of the historic points of the state. It is a most prosperous town, having fine schools, a public library and many imposing buildings. Miles has attractions of climate, of location and environments that presage its steady growth. It is the natural business and freight center of a vast scope of country, and an important shipping point for cattle and wool.

STATE REFORM SCHOOL—BOYS' BUILDING—MILES CITY, CUSTER COUNTY

DAWSON COUNTY.

Lying south of Valley county is Dawson, a growing county of the state, having an altitude of but 2,000 feet. It is a region of vast plains lying between the Missouri and Yellowstone rivers. Its chief wealth is in cattle and sheep, though it has large areas of irrigable land that will be very

productive. The county seat is Glendive, an important railroad and commercial point near the east boundary of the state, on the Northern Pacific railroad.

DEER LODGE COUNTY.

MAIN BUILDING, STATE INSANE ASYLUM, WARM SPRINGS

Deer Lodge is largely mountainous and therefore devoted chiefly to the mining industry. That part of Deer Lodge valley embraced within the county lines contains many fine ranches and some productive hay land. The potato crop is superior. The mountains westward are well mineralized, but mining on a large scale has been limited to the old Cable district whose mines are of famous richness in gold-bearing ore. A 20-stamp mill is in operation there. The west end of the county is heavily timbered and the wood-cutting industry is important, one contract having been let calling for 400,000 cords. The State Insane Asylum is located at Warm Springs in Deer Lodge county.

CITY OF ANACONDA.

DORMITORY, STATE INSANE ASYLUM, WARM SPRINGS

Anaconda is the county seat. It is the fourth city in the state in population. It is known for being the location of the famous Anaconda or Washoe Smelting & Refining plant, the greatest ore-reduction works in the world. Naturally the population it supports is prosperous and permanent. Anaconda is a city of 10,000 souls, having all the conveniences enjoyed by any metropolis in the country. It possesses handsome business blocks, costly public buildings, a free library containing 10,000 volumes, electric car service, a never-failing supply of pure water, a health-giving climate and two railroad connections.

THE GREAT WASHOE SMELTER.

Anaconda grew out of the prairie in a year and has flourished mightily because the water power of Warm Springs creek made it a suitable site for

WASHOE SMELTER, ANACONDA, DEER LODGE COUNTY. LARGEST IN THE WORLD

a smelter. That smelter which receives its ore from the Butte mines of the Amalgamated company cost more than $6,000,000.00. The site of the plant covers 300 acres. A hill-side was selected for the buildings, in order that gravity might be utilized to the fullest extent. The sampling mill is 42 feet wide, 60 feet long and 5 stories high. The concentrator building is in two parts, each 250 feet wide by 300 feet long; its capacity is 6,000 tons and it is fitted with 230 Wilfley and 28 Overstrom tables. Five boiler batteries supply 3,000 horse power to run the concentrating machinery. In the construction of the concentrating plant and power house 6,000 tons of steel and 10,000,000 feet of lumber were used. After concentration the ore is conveyed to the roaster building, 98 by 330, and containing 48 McDougall roasters in which the ore is desulphurized by heat. The calcined product is thence conveyed to the reverberatory plant in two buildings severally 128 by 174 and 182 by 225 feet, containing 14 reverberatory furnaces. These buildings like all others are fire proof and contain 22,500 tons of steel and iron. From the reverberatories the product is con-

HEARST FREE LIBRARY, ANACONDA, DEER LODGE COUNTY

STREET SCENE IN ANACONDA, DEER LODGE COUNTY

veyed to the blast furnace building, 82 by 196, in which are located five large furnaces having a combined capacity of 1,500 tons. The bins used to store the material for the blasting furnaces required 7,000,000 feet of lumber in construction. From the blast furnace building the product is sent to the converter plant, the building being 177 by 416. The converters are 8 by 12.6 feet, the largest ever built. The capacity of the converters is 500 tons of matte per day. Two thousand tons of steel and much brick and stone were used in their construction. The building in which power is generated for the blast furnace and converter plant is 48 by 525, the boilers having 2,150 horse power. Each of the big buildings has a stack 23 feet in diameter and 200 feet high and one general stack recently built is 280 feet high. Standard gauge railroad tracks connect all the buildings and the auxiliary machinery comprises everything that genius and experience could suggest. The process of reduction from crude ore to refined copper of marketable quality will be found illustrated in the Montana exhibit at the mines and metallurgy building. The smelter is the greatest and most complete ever constructed. It employs from 2,000 to 3,000 men. Its product yearly varies between $15,000,000 and $20,000,000. The B. A. & P. railroad, a branch of the Great Northern, connects the smelter with the mines at Butte.

PUBLIC HIGH SCHOOL, ANACONDA, DEER LODGE COUNTY

FERGUS COUNTY—LEWISTOWN.

In the very center of Montana, is Fergus county, one of the largest and richest divisions of the state. The county embraces an area of 6,762 square miles, or 5,675,000 acres, yet its population today scarcely exceeds 10,000 souls. Now that a railway has been completed to the county seat a stream of immigration has begun to enter the county, the population is increasing rapidly and property values are growing in proportion. There are yet thousands of acres of valuable land that may be secured at moderate prices. The mining districts and business centers offer splendid inducements to the right class of settlers. The topography of Fergus county presents a vast stretch of rolling prairie country interspersed with several ranges and groups of mountains. These afford ample protection to the cattle and sheep during the winter months, thus lessening the expense of winter feeding. The valleys between the mountains are among the choicest farming lands of the state and are capable of raising abundant crops.

ON THE RANGE IN FERGUS COUNTY

The county seat is Lewistown, a thriving city of 2,200 population, located near the center of the county, and having fine schools, churches and public buildings. It is claimed that there is a greater amount of business in dollars and cents transacted in Lewistown each year than in any city of like size in the world. The Montana railroad has its northwestern terminus at Lewistown, and connects with the Northern Pacific lines at Lombard, 200 miles southwest.

Fergus county has four principal sources of production—agriculture, stock raising, wool growing and mining.

Of the 5,675,000 acres of land in Fergus county, 1,386,149 acres have been appropriated and settled on under the various land acts, but there still remain open for settlement 4,087,080 acres. More than 75 percent of the land already appropriated and settled on is agricultural lands. The greater part of that yet remaining open for settlement is grazing land, though in some localities very good ranches may still be found and thousands of acres of fine grazing land are available for entry under the desert land act.

The price of both valley and bench land in Fergus county and vicinity for which titles may be obtained, is far below that of any other section of the northwest when the character of the land is considered. Improved valley land under irrigation ranges from $12.50 to $18.00 per acre. Valley land not under irrigation, but adjacent to the mountains and sure of producing crops every year is valued at from $10.00 to $15.00 per acre, and bench land near the mountains is worth from $7.50 to $12.00 per acre. The productiveness of these lands equals that of any in the world. They produce splendid crops of both winter and spring wheat, oats, rye, barley, timothy, alfalfa and all kinds of grasses, every variety of vegetable and in fact every plant that may be produced in this latitude.

No other section of the northwest offers a more inviting field than Fergus county to the farmer who has a moderate amount of capital to begin with and a reasonable amount of push and energy to progress with.

Wool growing is an extensive and profitable industry. Fergus county wools command a high average price. Since the advent of the railroads, a movement is in progress for the establishment of a wool market at Lewistown, the county seat. It is estimated that 4,000,000 pounds of wool will be marketed there this year. More than five million pounds of wool were grown in the county in 1903.

$15,000 CLEAN-UP FROM GOLD RIDGE MINE AT GILT EDGE, FERGUS COUNTY

The mines of Fergus county have become prominent among the gold producers of the state. Four big mills treat 18,000 tons of gold ores each month and produce $125,000 in gold bullion for the same period. A great amount of outside capital has recently been invested in the mines and promises to return gratifying results to the investors. Two large mills are treating ores at the prosperous camp of Kendall and two are operating at Gilt Edge. No fewer than three other mills are projected for building during the present year and much activity is shown in every camp in the county. One company alone is paying a monthly dividend of $25,000.

The sapphire mines at Yogo, in western Fergus county, are famed throughout the world for the purity and brilliancy of their gems. The Yogo sapphire rivals the oriental stones in all the qualities that make these gems valuable, and the Yogo stone is the standard of sapphire values in the markets of Paris, London and New York. These beautiful gems are mined from a great vein of matrix at Yogo in the western part of Fergus county.

For many years Fergus county has been known throughout Montana as the Inland Empire. Its wealth of resources fully bears out this title, and the homeseeker who would consult his own best interests should investigate the claims of that section of Montana.

FLATHEAD COUNTY AND KALISPELL.

Flathead county is situated in the northwestern part of the state, on the western side of the main range of the Rocky mountains. It contains about 8,000 square miles of territory, agricultural, forest and mineral in character, and is favored by a climate which, being neither too warm in summer nor too cold in winter, may well be described as perfect. The county is diversified in scenery by

WHEAT FIELD IN FLATHEAD VALLEY

broad, fertile valleys, beautiful rivers, Swiss-like lakes and mountains and has developed in a remarkable manner since it was carved out of Missoula county a few years ago.

The county is traversed east and west by the main line of the Great Northern railroad, while the Jennings branch runs north into the Canadian coal fields and a branch line south connecting Kalispell with the main line of the Northern Pacific road is in contemplation. The Great Northern has completed a line from Columbia Falls west to the Jennings branch, opening up a rich territory. In the summer season a steamboat plies on the great Flathead lake, situated a few miles south of Kalispell, the county seat, connecting with a line of stages running to the Northern Pacific. A number of other railroad enterprises are under consideration. The county is, therefore, not lacking in transportation facilities.

The farming, horticultural and stock raising industries of the county are wonderfully productive. The fertile Flathead valley, thirty miles in length, north and south, and twenty miles in width, as well as the smaller Smith and Swan valleys, and the northern portion of the Kootenai valley, called the Tobacco Plains, produce all the small grains, grasses, vegetables and fruit in great abundance. The soil is a dark, rich loam on a clay subsoil. The climate is mild like that always found west of the main range, the mean annual temperature being 43.3 degrees. July is the warmest month, with an average temperature of 63.2, while February is the coldest month, with a mean temperature of 23.6 degrees. The average altitude of the county is 3,000 feet. The rainfall is ample for raising all crops. Both spring and winter wheat are raised, the yields of the former being from 20 to 40 bushels per acre and the latter from 35 to 65 bushels. The oat crops are large, a yield of 80 bushels per acre being common, while there have been yields of 110 bushels per acre. Rye and other grains do equally well. Timothy, which is raised largely for hay, and all the clovers succeed admirably. Hay crops are generally large and profitable, selling at from $9.00 to $16.00 per ton, the near by lumbering and mining operations affording a good market for that fodder and other farming productions. Vegetables of all kinds thrive amazingly in the Flathead county soil.

LUMBER YARD, FLATHEAD COUNTY

Failures of crops in the Flathead valley are said to be unknown in the dozen years' history of the valley. While the raising of crops and fruit constitutes the major part of the Flathead county farmer's calling, not a

few devote their time also to dairying. Many have met with success in the production of milk and butter. Every year more farmers add to their dairy herds with increasing profit.

The fruit orchards of Flathead and other valleys are very successful. Thousands of trees are planted annually and already many orchards are yielding handsome returns. Apples, pears, plums, cherries and small fruits, strawberries, currants, gooseberries and raspberries of fine flavor and large size do excellently. At the state fair held in Helena last autumn, and at the county fair at Kalispell, the displays of the fruit production of Flathead county were marvels to the visitors. The samples of apples, pears, plums and cherries, as well as the other fruits enumerated, could hardly be surpassed anywhere in quality and other points recognized by the successful fruit raiser. Hundreds of instances can be cited of the success that has followed the efforts of fruit farming, especially in the Flathead valley.

HIGH SCHOOL, KALISPELL, FLATHEAD COUNTY

CARNEGIE LIBRARY, KALISPELL, FLATHEAD COUNTY

Farm lands under cultivation sell from $30.00 to $60.00 per acre. Every year a large amount of rich land is reclaimed from the forests, and farms of this character sell for from $1,000.00 to $2,000.00 per 160 acres. Moderate-sized farms are the majority.

The large amount of timber—pine, spruce, fir, larch and other evergreen trees, of the best quality grown in the country, makes it one of the leading lumbering sections of the northwest. There are nearly 40 saw-mills in operation in the Flathead valley alone and many others scattered over the county. Besides plenty of wood for fuel there are extensive coal fields in the northern part of the county. There, also, notably in the Kintla lake district, oil has been found and several companies are boring wells with every assurance of success.

While it ranks high in the productions mentioned, Flathead county is rapidly coming to the front as a mining county. In different sections of the county, gold, silver, lead and copper ores are found and in several of the mining districts a large amount of work is being prosecuted. Several paying gold mines in the West Fisher district, in the southwestern part of the county, and a number of promising properties are being developed near Libby and Troy. Placer mining is also profitably conducted. Copper ore is found in the Tobacco Plains country in the northwestern part of the county, and also along the North and South forks of the Flathead river. In no part of the state are there better opportunities for prospecting and mining than in the wonderful Flathead county.

The hunter and the fisherman can find plenty of sport in Flathead

county. The numerous lakes and rivers teem with fish, while game, large and small, is to be found abundantly in the mountains and foothills. Lakes Flathead, McDonald and Whitefish, the largest of the lakes, have been pronounced among the most beautiful bodies of fresh water in the world.

SOLDIERS' HOME, COLUMBIA FALLS, FLATHEAD COUNTY

KALISPELL.

Although the county seat is only 12 years old it has a population of five thousand intelligent, progressive and patriotic American citizens. The city has four flour mills that grind the wheat raised in the valley, several saw and planing mills, a foundry, creamery and other industries. Electric lights, water-works, telephone system, sewers and other conveniences of an up-to-date town make the county seat an important point. There are four large school buildings, one of which is the county free high school, recently completed. The several denominations of churches are well represented. As Kalispell is a divisional point on the Great Northern road, a large amount of money is disbursed monthly by the company.

CENTRAL SCHOOL, KALISPELL, FLATHEAD COUNTY

COURT HOUSE AND JAIL, FLATHEAD COUNTY

Columbia Falls, located about a score of miles northeast of Kalispell, in a very rich section of the valley, is a well laid out young city of great promise. Here is situated the state soldiers' home, one of the institutions that are the pride of Montana.

Whitefish and Libby are two important business and industrial centers. In all the towns, large and small, the visitor will find a high class of citizenship, splendid schools, good churches and other evidences of a modern civilization. Investors and homeseekers will find much that deserves careful consideration and personal investigation in Flathead county.

GALLATIN COUNTY—BOZEMAN.

Gallatin county, in southern central Montana, is the granary of the state. There irrigation has been brought to its greatest perfection, the

BARLEY READY FOR SHIPMENT, GALLATIN COUNTY

natural streams conveying an abundance of water to the farm lands like a series of irrigating canals. While much of the surface of Gallatin county is adapted to various departments of husbandry, the Gallatin valley itself has achieved a world-wide fame for its fertility and immense productiveness. This valley, having an average elevation of 4,500 feet, contains over 700 square miles and is surrounded on three sides by high and picturesque mountain ranges whose waters convey to the land below the fertilizing salts and other chemical properties which account for the size and quality of the crops raised in the "Egypt of America," as it was called by Professor Hayden of the Geological Survey. Not only is the valley itself, with its rich soil from three to one hundred feet thick, of extraordinary agricultural value, but the bench lands extending to the very base of the mountains are almost equally rich for wheat raising purposes, having the additional merit of raising fine crops without irrigation. Evidence is conclusive that the entire valley was once the bed of an ancient lake, which further explains the wonderful fertility of the soil. It is well watered by two branches of the Gallatin river, the West Gallatin and the East Gallatin and their tributary streams, from which canals have been cut where required across the gently-sloping lands.

NATURAL BRIDGE ON BOULDER RIVER, GALLATIN COUNTY

The chief crops of the Gallatin valley are wheat, barley, oats, timothy, clover and alfalfa. Wheat was formerly raised on the summer fallowing plan, but the agricultural experiment station located at Bozeman demonstrated the wisdom of a rotation of grain with red clover and alfalfa, the two latter products being used for the winter feeding of cattle and sheep with the result of increasing the productiveness of the farm by at least one-third without materially reducing the grain production. Dairying, with mixed husbandry, will follow in the natural evolution of Gallatin valley farming, all the best economic conditions being present. The four seasons regularly come and

go without sweltering heat, howling blizzards or death-dealing cyclones.

The wheat, oat and barley crops of Gallatin county per acre are remarkably large. Wheat seldom reaches as low as 40 bushels and is oftener 50 bushels; oats generally yield 75 bushels and frequently 100 bushels; barley averages 50 bushels and sometimes exceeds 75 bushels. The entire oat crop of the valley averages from 40 to 42 lbs. to the bushel. Gallatin barley in size, plumpness and weight is the best in the world. It is largely shipped to the brewing centers of the country and finds a ready market in England and Germany both for malting and seed purposes. It received the Pabst prize in competition with 102 samples on exhibition at the National Irrigation congress at Ogden, Utah, in 1903, also the $500 loving cup offered for the best barley exhibited from a western state. Professor Dr. Delbruck, the German chief commissioner of agriculture, officially reporting on Gallatin barley, says: "Here on the Manhattan farm I found a country and a system of cultivation ideal for the growing of barley; I have here seen the barley raised, the finest I have ever seen, bright in color, large in size, fine as to husk, equal to the very best of European barleys and decidedly the best raised in North America; it is neither damaged nor discolored by unseasonable rain, nor withered because of lack of irrigation when moisture is needed." Sixty-five threshing machines make music for the valley farmers in the harvest time.

STATE AGRICULTURAL COLLEGE, BOZEMAN, GALLATIN COUNTY

There are several promising mining districts in Gallatin county which show rich gold and silver ore on the surface. Large areas are also underlaid with a fine quality of coal largely used for domestic purposes. Extensive beds of beautifully colored onyx are being developed. The mountains are thickly covered with timber. Building material is cheap.

There is little land in Gallatin valley open to location, but improved farms with water rights may be obtained from $25 to $75 per acre according to location. In other valleys of the county, valuable land may be secured for less price. Some farms are not for sale. Throughout the county land which is much better than any in Iowa or Illinois and twice as productive, may be had for half the eastern price of land. In the matter of climate, healthfulness and scenery, Gallatin county invites investigation and challenges comparison. There is not in all the mountains of the west a more charming region for human habitation.

Bozeman, the county seat, on the Northern Pacific railroad, with a population of 5,200, with wide streets, handsome business blocks and

CARNEGIE LIBRARY, BOZEMAN, GALLATIN COUNTY

impressive public buildings, is essentially a city of homes. Its residence district is shaded and beautiful and growing rapidly, 400 houses having been built since 1900. It has flour mills, grain elevators, four banks with deposits of $1,250,000, two grammar schools and a county high school, having 1,280 pupils and 29 teachers, water-works and supply of pure mountain water and all the other conveniences of a large, well-ordered American community. Here, too, are the state agricultural college and agricultural experiment station, with a faculty of 29 professors and 350 students; also a government fish hatchery. At Belgrade, near Bozeman, are a flour mill and several grain elevators.

A few crop reports from Gallatin Valley for the season of 1903, collected at random from the farmers of the valley, are as follows:

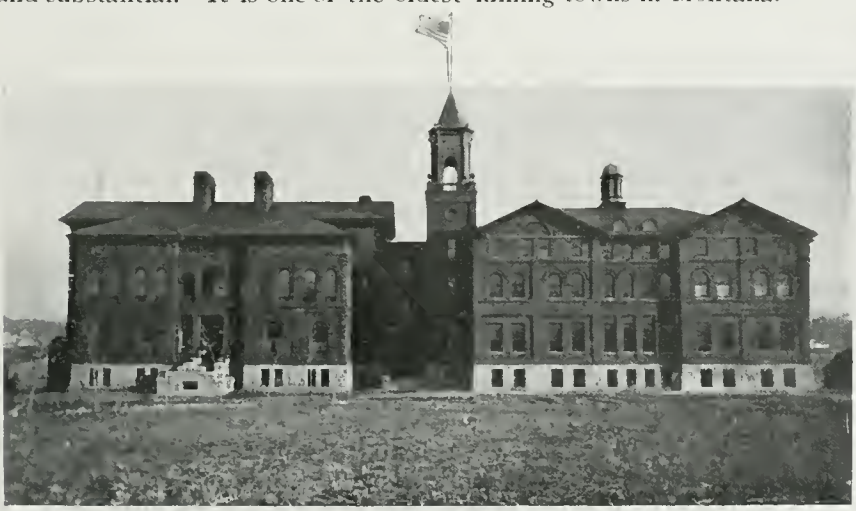
Name.	No. Acres.	Kind of Grain.	Yield per Acre. Bu.	Total Bu.
G. W. Anderson	200	Oats	70½	14,100
H. J. Border	9	Oats	73	675
	135	Barley	52	7,104
John F. Collett	28	Oats	71	1,978
	15	Barley	75	1,125
	36	Barley	57	2,083
Mrs. Hurlbut	15	Wheat	70	1,085
	35	Oats	103	3,703
Frank Jacobs.	90	Barley	71	6,390
J. R. Kimm.	42	Oats	72	3,037
	118	Barley	60	7,064
Geo. Lucas.	8	Oats	103	825
	42	Barley	61	2,584
Nash Bros.	175	Barley	70	12,225
	10	Wheat	63	630
	95	Oats	71	6,770
W. C. Newton	13	Oats	122	1,586
	33	Barley	63	2,079
L. P. Van Dyken	11	Wheat	53	587
	38	Oats	81	3,102
	70	Barley	51	3,575
J. M. Wylie	68	Wheat	42	2,862
	72	Oats	77	5,570
Dell Willard.	54	Barley	70	3,788
	9	Oats	97	877
	20	Wheat	44	885
W. E. Wood	110	Oats	98	10,826

GRANITE COUNTY—PHILIPSBURG.

HIGH SCHOOL BUILDING, PHILIPSBURG, GRANITE COUNTY

Granite is a mining county. Silver and gold are its chief products. The valleys lying between the mountains are veritable garden spots and the bench lands afford abundance of nutritious grasses for the cattle and sheep. The broken surface of the country offers many sites for irrigation reservoirs. Nowhere would farming be more profitable on a small scale, as the local market is unexcelled. Granite county contains 1,000,000 acres of land, of which only one-tenth has been located. Its mines have produced many great fortunes, one company alone, the Granite Mountain, having paid out $12,000,000 in dividends. At present, mining operations are chiefly confined to the Bi-metallic and Hope companies, the former concern working a 100-stamp silver mill and the latter a 20-stamp mill. The placers in Basin gulch are prosperous and the sapphire diggings on the west fork of Rock creek are producing valuable gems. The Antelope, Combination and other gold and silver districts are rich in precious metals and need only capital for development. Garnet, a gold district, produces from several properties much ore showing native gold in profusion. The veins are regular and well defined and have every indication of permanence. The mountains of Granite county are richly mineralized, surface prospects being of astonishing richness and evident permanence, but the lack of capital has retarded exploration.

Philipsburg, the county seat, is a substantial mining city, beautifully located at the base of the mountains. It does a large business with miners and ranchers; has fine schools and churches. It is prosperous and substantial. It is one of the oldest mining towns in Montana.



STATE DEAF AND DUMB ASYLUM, BOULDER, JEFFERSON COUNTY

JEFFERSON COUNTY.

PUBLIC SCHOOL, WHITEHALL, JEFFERSON COUNTY

Jefferson county comprises 1,600 square miles of territory, mostly mountainous. The principal valleys are the Boulder, Jefferson and Prickly Pear, where many irrigated farms are flourishing. The cereals, root crop, grasses and vegetables are profitable products and the market for them in the adjacent mining districts is excellent. Owing to the broken surface of the county, which is crossed by the main range of the Rocky mountains, mining is the chief industry. There is no better field for the prospector or mining capitalist. The ore-bearing ledges crop out on the mountain sides, their bigness and evident permanence being their chief characteristics. Basin, Lump Gulch, Elkhorn, Whitehall and Wickes are the chief mining centers, their growth and productiveness being the pride of the inhabitants.

Boulder, the county seat, is a town of 1,000 population; it has excellent schools and churches. It is the seat of the State Deaf and Dumb asylum. Two miles distant are the Boulder Springs, while on the other side of the range are Pipestone Springs. Whitehall is a city of much promise, located on the Northern Pacific line, between Bozeman and Butte.

LEWIS AND CLARKE COUNTY COURT HOUSE AND JAIL, HELENA

MAIN STREET, HELENA

LEWIS AND CLARKE COUNTY—HELENA.

Lewis and Clarke county, lying in the central portion of the state, and consisting of mountain, upland and valley, is rich in mineral and agricultural resources. The mining districts of Marysville, Rimini and Gloster have a dividend record of many millions of dollars, while isolated properties in other parts of the county have added and are still adding to the gold and silver output. Nearly one-half of the county's area is included in the Lewis and Clarke forest reserve, but fully 400,000 acres have been located, improved and made assessable property, comprising many of the finest farms in the state. The stock interests are also important. The valleys of the Missouri and Prickly Pear produce the best of cereals, vegetables and hay. On the banks of the Missouri, near Helena, an electric plant costing $1,000,000.00 is located, furnishing power not

INTERIOR OF BROADWATER NATATORIUM, HELENA

only to the capital, but to Butte, seventy miles away. The Broadwater natatorium, near Helena, is a famous pleasure and health resort, having the finest hot water plunge bath in the world. Near by is the military post of Fort Harrison. Six miles east of Helena, a 500-ton silver-lead smelter is in operation, employing 500 men. The mineral product of Lewis and Clarke county exceeds a million and a half per year; it contains some of the richest mining property in the state, most of it undeveloped because of lack of capital. A majority of the mines in operation are gold bearing.

HELENA, THE STATE CAPITAL.

Helena, the capital city of Montana, presents extraordinary attractions for residents, both new and old. While the population of Helena is only about fifteen thousand people, it possesses most of the advantages found in the larger cities of the country. The climate is mild and equable, with no sudden or extreme changes of temperature. Situated in the foot-hills of the main range of the Rocky mountains, Helena suffers from no severe storms, winter or summer. A writer in the "World Today," on "The Rockies as a Winter Residence," says: "Perhaps one attraction of the Rocky mountain region that impresses the new-comer most deeply, and also most pleasantly, is that of the abundance of sunshine. Montana seldom sees a cloudy day, or one that is even partly cloudy, from October to May. It is well known that this region offers unusual inducements to the invalid in summer and it is rapidly coming to be known that its attractions in winter are no fewer." The air of the Rockies is built for business.

FEDERAL BUILDING, HELENA

The city of Helena is peculiar in many respects. Its location, fortunate as it has proved, was decided by the discovery of gold in Last Chance gulch, millions in gold being washed from the ground now covered by the business part of the city. It is admirably situated at the crossing of two great railway systems, the Northern Pacific, east and west, and the Great Northern, south, thus affording convenient communication with all parts of the state and country.

Helena, besides being the capital city of the Treasure State, is a financial, educational, political and social center. Its schools are admitted to be among the best in the country, and are supplemented by a public

library of 35,000 volumes. These form a great inducement to wealthy mining men, stockmen and ranchers from all parts of the state and the northwest to make their homes in Helena in order to give their children an education and enjoy its social advantages. Owing to its excellent railway facilities, Helena is the best distributing point in the state and is therefore the home of many representatives of eastern manufacturing and jobbing concerns. For the same reason it is the favorite city for the holding of state conventions and meetings of various state societies and associations.

MONTANA CLUB BUILDING, HELENA

No city of anywhere like population in this country has so many fine and substantial public and private buildings. Its business buildings and public edifices surprise eastern visitors.

There is no city in the country that can compare, its size being considered, with Helena in the matter of elegant and costly residences. It is one of the wealthiest cities in the country, according to its population. It is well supplied with water, electric lights and gas, and with street railway lines to all sections and points of interest. There is no smelter smoke in Helena.

Helena is the center of the greatest gold mining section of this country, if not in the world. Over eighty million dollars have been taken from the gulches running north through Helena and a few miles each side and but a small portion of the territory has been more than prospected. There are hundreds of quartz mines within a radius of fifty miles, many of which are being profitably worked. A number of them, located within five miles of the city, have produced many millions in gold.

HELENA PUBLIC LIBRARY.

The country around Helena is well settled by ranchers, gardeners, and stockmen, and the lands under irrigation produce large and profitable crops of hay, grain, alfalfa, vegetables and fruits. A nursery company has large green houses near the Broadwater hotel heated by the hot water of the natural springs.

Altogether Helena presents unequaled advantages for investments and business enterprises, or for pleasant and healthful homes.

MADISON COUNTY—VIRGINIA CITY.

Madison is called the mother country of Montana. It contains about 4,300 square miles and a large proportion of its lands is still open to settle-

STATE ORPHANS' HOME, TWIN BRIDGES, MADISON COUNTY.

ment. Mountain ranges cross the entire length of the county, forming broad and fertile valleys through which flow magnificent streams.

The chief industries of the county are farming, cattle, horse and sheep raising and placer and quartz mining. The topography of the county, with lakes high in the hills, makes reservoiring possible and profitable in every section of the county.

The mountain ranges and rivers divide the county into four sections. At the head of the Madison valley, in the southern corner of the county, is the Centennial valley, high up in the mountains, but where the cattle ranges are unexcelled and the hay and alfalfa crops are most excellent. All through the valley of the Madison the cattle ranges are fine, the agricultural products abundant, and the supply of water for irrigation purposes almost inexhaustible. In the hills on either side are undeveloped fields of coal, iron and manganese. In this valley the ranchmen are all prosperous and the per capita wealth of the residents is asserted to be greater than in any other agricultural section of the state.

The Ruby valley heads in the Gravelly range of mountains and passing through a narrow gateway or canyon, splays out into the Jefferson at the mouth of historic Alder Gulch, the richest placer gold deposit ever found in the history of the world. Here extensive dredging operations are being conducted, and dredges now at work handle every day in the year over 6,000 cubic yards of gravel containing gold. The Ruby valley is prolific in its resources. Away up in the mountains are undeveloped coal fields.

TWO-YEAR-OLD THOROUGHBRED SHORTHORNS, MADISON COUNTY

The bed of the streams is placer gravel. The ranches are second to none. The cattle ranges are among the best in the state. In this valley are two of the largest and finest horse ranches in the United States.

COUNTY COURT HOUSE, MADISON COUNTY

The Ruby valley opens into the Jefferson and all along the banks of the Jefferson and extending far into the foot-hills are excellent cattle ranges, ranches and small farms, while at the very border of the county, in the Waterloo, Summit valley and South Boulder districts, are the county's garden spots, for there apples, pears, strawberries, raspberries and melons are successfully cultivated, finding a ready market in the large cities of the state. In the valley of Granite Creek, just outside Virginia City, the county seat, fruits and vegetables of all kinds are raised.

On the east side of the main range of mountains, where Willow Creek forms a valley on its way to the Jefferson, the agricultural advantages are most excellent and the ranches most productive.

The cattle industry is conducted by local owners. There are no corporations to smother the existence of the small owner, and the same condition obtains with the sheep and horses. The raising of Angora goats is a new industry that promises to become a factor in the wealth of the county. All Madison county is owned at home, and all its products are in demand.

Madison county is mineralized from end to end. There is no part in which gold is not found in paying quantities. The rancher often is the miner. He works his ranch in the summer and in the winter lives beneath the ground in a mine high in the mountains, perchance overlooking his ranch in the valley beneath. Speaking generally, the county is divided into mining districts taking their names from the nearest large town. Thus Virginia city, Sheridan, Twin Bridges, Rochester, Pony, each gives a name to the district. Gold was discovered first in Montana within the present limits of Virginia city, and for many years miners devoted all their attention to obtaining the yellow metal by washing the beds of the streams. Then copper was discovered in Butte and

ELLING MEMORIAL CHURCH, VIRGINIA CITY, MADISON COUNTY

all other camps were almost forgotten. In years following the attention of mining operators was directed to outside camps and Madison county is just beginning to become recognized in the quartz mining world. Within the past several years Virginia city has added three quartz mills, Rochester has added two, Pony one, and throughout every mining district in the county there is more mining and more prospecting being done to-day than ever before in the history of the county. It is a legitimate growth, and yet the hills are barely scratched.

Madison county presents an unequaled field for the settler. Lands may be secured by homesteading, or by purchase, at reasonable figures; the cattle ranges are free to all; ready markets are secured for all farm products; the county horses are noted throughout the world, and in the mining industry no locality in the country affords such unexampled chances to the man with capital.

VIRGINIA CITY.

Virginia city, the county seat of Madison county, Montana, with an altitude of 5,778 feet, is the oldest incorporated municipality in the state; the only city holding its franchise under a special charter, and the only city with a townsite patented direct from the United States government. It is midway up Alder Gulch, in the heart of the Tobacco Root range, and has fertile valleys and rich mineral districts on every side. It has a splendid water system, with the water bubbling from springs on the mountain-side; a large county court house; a fine city hall with theatre and auditorium; a commodious school house; two state banks with deposits reaching into the millions, and the usual complement of business houses. Virginia City is known throughout the state as the "Social City" on account of the unvarying hospitality of its people. For many years it was the capital of the state.

MEAGHER COUNTY.

A RESIDENCE, WHITE SULPHUR SPRINGS, MEAGHER COUNTY

Meagher is the state's banner sheep county Geographically it is in the center of Montana and in almost every respect it is identical with Fergus. All the good things that may be claimed for Fergus are likewise true of Meagher, as far as the quality of the land for agriculture and stock raising purposes is concerned. The two counties were formerly one. Meagher has a broken surface, being traversed by four mountain ranges or belts. The valleys and bench lands between them comprise some of the finest grazing lands in the state. Every industrious farmer there is rich, or becoming rich. Every cattleman or sheep raiser is prosperous from his own efforts, or despite himself, for all the conditions of soil, climate and feed

essential to success are present in Meagher county. There is, however, plenty of room for new settlers for years must elapse before all the available land shall be occupied. The leading agricultural valleys of the county are Smith river and the Musselshell, in which more than three-quarters of a million acres of land are under cultivation.

The central point of interest in Meagher county is White Sulphur Springs, where thirteen small springs of varying temperature boil up to the surface. They have been famous, in fact and in fancy, for their wonderful curative properties. To the aborigines they were a cure-all, for their civilized successors they have accomplished much good. Near the springs is the city of the same name, one of the most prosperous in the state. It is a veritable garden spot, fruit of all the hardy kinds growing successfully and vegetation being generally luxuriant. The mining camp of Castle is in Meagher county, but its chief wealth lies in its flocks and herds and its square miles of fertile, irrigable lands, awaiting the homeseeker and the husbandman.

PART OF THE CITY OF MISSOULA

MISSOULA AND CITY OF MISSOULA.

The garden of Montana! A low altitude, a genial climate, abundant water and a rich soil contribute conditions admirably adapted to horticulture and agriculture. Western Montana is known as the land of Big Red Apples, and certainly no section of the Pacific slope is more favored by nature, not only for the raising of apples, but all the other hardy fruits and all varieties of vegetables and grain. Missoula county, as a place of residence or business, is ideal. Its mean altitude is 2,300 feet. Its surface is diversified and its resources varied and extensive. It is the great lumber section of the state. One of its saw-mill plants produces 235,000 feet of lumber per day. This is one of the concerns whose exhibit of native

UNIVERSITY HALL AND GYMNASIUM, MISSOULA

woods and dressed lumber at the Exposition will interest students of western industry and development. Millions of dollars are invested in the saw-mill business of Missoula, yet agriculture and fruit growing are its main dependence.

The soil is free of alkali, and experiment has long ago proved its adaptability to the growth of trees and fruit. Wheat, oats and barley are leading crops, while grasses, clover and root crops flourish marvelously. The Missoula county fair each year is an event of state-wide interest and accounts for the local demand for land for home-making purposes. For the man who wishes to provide for his family a home that is more than comfortable, and an income that is certain, a small farm in western Montana presents an opportunity that is unsurpassed. There is no more delightful climate to be found anywhere; there is no western city that is more desirable for a residence than Missoula; no city affords finer educational advantages for a family of children; nowhere can such a happy combination of comfort and pros-

BUILDINGS OF STATE UNIVERSITY, MISSOULA COUNTY

perity be found. The small farm is the ideal home, and western Montana is its ideal location.

A COTTAGE IN MISSOULA

THE CITY OF MISSOULA.

The city of Missoula has been most aptly termed the Garden city. Its climate and its picturesque location combine to make it the handsomest and most attractive city in the northwest. Its people are justly proud of the place for its beauty of location and salubrity of climate, but it is not upon these attractions that the claim is made that Missoula is destined to become one of the most substantial cities of the West, but rather on account of its unusual resources—their wonderful extent and variety. Missoula's location makes it the natural center of a region that is unrivalled for the diversity and richness of its natural resources, and a visit to the city will add to this conviction the belief that the foundation has been well laid for future development along broad lines. Missoula is a division point on the Northern Pacific railroad.

The city of Missoula is a prosperous place of 7,000 inhabitants, the county seat of the county that bears its name and the distributing point of a vast area of unparalleled productiveness. It is situated at the head of the Missoula valley, near the confluence of the Missoula and Bitter Root rivers, and at the outlet of the famous Bitter Root valley.

The State University of Montana is located in Missoula—the chief educational institution of the treasure state. The splendid equipment, the wise management and the exceptionally well qualified faculty of this institution have won for it a leading position among the collegiate institutions of the west. Its location in Missoula makes the latter an especially desirable residence city and many cultured and refined families have already been attracted thence for permanent residence.

The situation of the institution is well advised, and its surroundings are intended to inspire the best efforts of the young men and women who are there enrolled.

AN ORCHARD HOME NEAR MISSOULA

Missoula has an admirable public school system, well conducted along modern lines. Its teachers are selected from those possessed of the highest qualifications and its buildings are modern and well equipped.

The churches of Missoula include the Congregational, Presbyterian, Episcopal, Chris-

tian, Baptist, Methodist, Roman Catholic, Adventist and Swedish Lutheran. All these societies have substantial and commodious edifices and are thrifty and prosperous. The Roman Catholics conduct an excellent parochial school and academy.

Missoula is essentially a city of homes. Its broad, well shaded streets; its unsurpassed water supply, taken from Rattlesnake creek, near the melting snows that feed it; its well built sewer system; its excellent electric light service, and its splendid railway facilities, combine to make it an ideal home city.

PARK COUNTY.

PUBLIC SCHOOL BUILDING, LIVINGSTON, PARK COUNTY

Park county is rich in agricultural resources and is unusually favored in its great mineral districts. Among its noted mining districts is that of Cook city in which are found tremendous quantities of carbonate ores. The county is also rich in coal and its coke ovens produce monthly 5,000 tons of coke, which is shipped mainly to the Butte smelters. The Sheepeater mining district produces a large quantity of gold and there are located the famous Bear Gulch gold mining properties. In addition there are other rich gold mining districts which are as yet undeveloped. Stock growing is conducted on a very large scale and the agricultural interest is flourishing. Large schemes for reservoirs and irrigating canals are planned and being actively pushed to completion. The Shields river valley, 100 miles in length and well watered, happily illustrates the splendid possibilities of irrigation. Grain, alfalfa and fruit are large, paying crops. Much fine land is open to location or reasonable purchase.

CITY OF LIVINGSTON.

Livingston is the county seat of Park county. It is a thriving city of 4,000 population, possessing all modern municipal improvements. It is a railroad division point from which the National Park branch of the Northern Pacific railroad extends to the national pleasure ground. It is surrounded by every advantage likely to make a large and prosperous community, and by reason of the water power available from the Yellowstone river is destined to become a great manufacturing center.

POWELL COUNTY.

East and north of Granite county, in the southern part of the state, is the county of Powell. Deer Lodge, the county seat, is an interesting old town in the valley and on the river of the same name. It is the home of well-to-do stockmen who own cattle and sheep in many parts of the state. Powell itself contains 100,000 sheep. The Deer Lodge valley is a rich agricultural section. North of Deer Lodge city, in the early days, were many placer mines which were the scenes of historic stampedes. Many extensive bars of gold-bearing gravel are still awaiting development. There is also some quartz mining in several districts. Deer Lodge has two famous institutions of widely different character, viz: The state penitentiary and the Kohr's free public library. It is a beautiful town as a place of residence and an educational center of note.

MONTANA STATE PRISON, DEER LODGE CITY, POWELL COUNTY

WILLIAM K. KOHR'S MEMORIAL LIBRARY, DEER LODGE CITY, POWELL COUNTY

RAVALLI COUNTY.

Lying south of Missoula county is Ravalli, containing 4,000 square miles, but tributary to the city of Missoula in many respects. It contains the famed Bitter Root valley, ninety miles long and ten miles wide, and watered by the river of the same name. It is identical almost with the valleys and plains of Missoula county, but is more generally devoted to fruit culture, yet the highest grade cereals are raised in abundance.

In weight, size and quality, the Bitter Root grains are second to none raised in the United States. In no state

FRUIT DISPLAY, BITTER ROOT VALLEY, RAVALLI COUNTY

BAND OF 10,000 SHEEP, STEVENSVILLE, RAVALLI COUNTY

of the Union are all the conditions of prosperous agriculture, horticulture and cattle raising better united. The lumber interests of Ravalli are second only to those of Missoula. The wages distributed in the lumber business approximate $1,000,000.00 per annum, which fact indicates the excellence of the market the farmers enjoy. The leading cities of Ravalli county are Hamilton, Stevensville, Florence, Victor and Corvallis, which are important shipping points for fruit, grain, hay, beef and lumber. The fruit farms of the Bitter Root are conducted on a large scale, some of the orchards being 500 acres in extent. A branch of the Northern Pacific connects its villages with Missoula, and abiding prosperity characterizes the people. Ravalli enjoys the distinction of being the only "dry" county in Montana—thanks to a local option law. The Bitter Root valley, containing 900 square miles, is as fertile as the valley of the Ganges. No valley in all the mountains of the west offers better opportunities to the investor or homeseeker.

ROSEBUD COUNTY.

East of Yellowstone, is Rosebud, the youngest county in the state; its area is 9,000 square miles. It comprises the Crow and northern Cheyenne Indian reservations and the Custer battlefield. Its surface consists mainly of high rolling prairie and rich bottom land, being, therefore, adapted to both stock raising and agriculture. Some of its best land has been brought into cultivation by irrigation with such notable success that new irrigation enterprises have been projected which promise the utilization

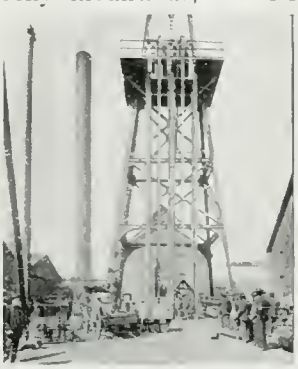
STATE SCHOOL OF MINES, BUTTE

of all available land, amounting to hundreds of square miles. The Yellowstone, Little Horn, Rosebud and Tongue rivers insure an abundant water supply. The land itself is unsurpassed in Montana, offering homes to the multitude. Investigation and comparison are invited. With two great railroads crossing its boundaries, good markets, splendid schools for children and an unequaled climate, Rosebud county is destined to go rapidly to the front and stay there. Forsyth and Rosebud are the chief cities and both are flourishing. The opening of the Indian reservation will make them important distributing points.

CITY HALL, BUTTE

SILVER BOW COUNTY AND BUTTE CITY.

Silver Bow county is the chief mining county of Montana, being located just over the divide of the Rocky mountains, on the west side, and being the only county given up wholly to mining and cognate industries. Silver Bow county is chiefly famous for the possession of the great mining city of Butte as its county seat.



GALLOWS FRAME, HOIST AND CAGE, ANACONDA MINE, BUTTE

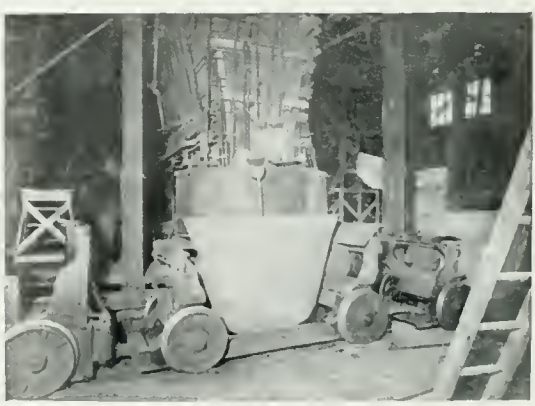
It is the unique

MINNIE HEALY MINE, BUTTE

distinction of Butte that it is the liveliest and busiest city of its size in the world. It has produced more wealth than any other mining city ever known and the production is continuous. Butte was first settled as a placer camp in the early 60's. From 1878 to 1885 the chief product was silver; from the end of that period to the present time copper has been the chief product, though silver remains an important by-product. Butte is largely a home-made city; that is, most of the capital expended in the development of its mines has been Montana capital, except that brought in during the past few years. So profitable have been the mines that business and labor interests have jointly flourished, and naturally Butte has grown into a great, thriving, bustling metropolis, the center of the state's financial activities, the main support of its diverse industries and one of the pillars of its future hopes. It has all the comforts and conveniences enjoyed by any of the other large cities in the country. Paved streets, electric lights, electric cars, water service, etc., were long ago introduced. The best evidence of the city's progress is found in the records of its production, pay-rolls, railroads and schools.

THE MINES OF BUTTE.

Concerning the mines of Butte a volume might be written without more than introducing the subject, but it is not so much what they have produced as what, with capital, they may yet be made to produce that this pamphlet has to deal. It is interesting however, to point out the character and size of the bonanzas that have so far been opened and the manner of their exploitation. That some of the great shafts of Butte have been sunk to a depth of 2,200 feet, that levels have been extended along the ore courses and that from the various workings over 13,000 tons



POURING SLAG IN A BUTTE SMELTER

BUTTE REDUCTION WORKS, BUTTE

of copper-silver ore are daily extracted may excite the surprise of the stranger, but that is only part of the story. It is of more importance to learn that as a result of Butte's extensive investment of capital in mining operations from 9,000 to 11,000 miners earn a prosperous livelihood under ground; that half as many more workmen are employed in the concentrators and smelters and that this army of men is the nucleus of Butte's wonderful business life. The pay-rolls of the mining companies alone amount to over $1,000,000 a month, to say nothing of the tremendous sums paid out for wages in auxiliary industries. Where else is the community of 60,000 people whose energies maintain a yearly production of $40,000,000 and whose pay-roll in a single industry approximates $15,000,000 per annum? What other mining district has produced more than $500,000,000 in twenty-five years? That Butte mines are now producing nearly one-half the copper product of the United States is a matter of official record.

These world-famous mines of Butte are located within a mile and a half of the city's center, while five of the smelters are south and east of the townsite and two are located elsewhere. The smoke from the mine hoists and reduction plants, the passing to and fro of 10,000 workmen, the

MONTANA ORE PURCHASING CO.'S SMELTER, BUTTE

COUNTY COURT HOUSE, BUTTE

noise of railroad trains climbing up or down the mountain-side upon which Butte is situated, commingled with the bustle of metropolitan life, combine to form a scene of animation and business activity equaled nowhere else on earth. Of the city itself, with its paved streets, fine public buildings and large business houses, picturesque surroundings and phenomenal prosperity, the photographic views printed in these pages are sufficiently descriptive. The mines surround the city on three sides; their development varies from surface cross-cuts to shafts 2,200 feet deep. The ore-bearing ledges are fissures running east and west and from a foot to 150 feet in width. Some carry silver alone, others silver and gold, still others silver, gold and copper. The shafts are vertical, having generally two or three compartments, cross-cuts being extended to an intersection with the ledges at intervals of 100 feet in depth and levels run east and west. Between the levels the ore is stoped and conveyed to the surface by cages hoisted by

MAIN STREET, LOOKING NORTH FROM PARK STREET, BUTTE

steam or electric power. The mines are timbered by the square-set method, the total consumption of timber being about 150,000,000 ft. each year. The ore bodies in the lower levels are from 10 to 150 feet across. The product assays from concentrating ore carrying four percent copper to copper glance, a sulphide, assaying 76 percent. The daily shipments are about 13,000 tons, the number of miners and smeltermen employed being from 12,000 to 15,000, including the smelter at Anaconda. The following is a list of the big mining and smelting companies operating in Butte:

Name.	Employes.	Daily Ore Production.
The Boston & Montana (smelter at Great Falls)	1,500	3,500 tons.
Butte & Boston	650	700 tons.
Colorado	600	700 tons.
M. O. P. Company	1,200	1,500 tons.
W. A. Clark	750	800 tons.
Pittsmont (estimated)	350	300 tons.
Amalgamated (smelter at Anaconda)	5,500	5,500 tons.
Miscellaneous	500	600 tons.
	11,050	13,600

BUTTE'S RAILROAD TRAFFIC.

The railroads connecting Butte with the business world reach the city from the four points of the compass. The Northern Pacific, Oregon Short

MAIN STREET, LOOKING SOUTH FROM QUARTZ STREET, BUTTE

MASONIC TEMPLE, BUTTE

Line and Great Northern are the city's transcontinental feeders, while the Burlington connects by traffic agreement with the Northern Pacific at Billings, and the B. A. & P. unites Butte and Anaconda. As a jobbing and distributing point, therefore, Butte offers superior advantages to the mercantile interests, while the incoming roads make it a natural market for the agricultural products of every county in the state. These considerations afford not only proof of Butte's stability, but indicate a certainty of growth of which the most optimistic citizen can scarcely conceive. Already the railroad traffic of Butte, on account of the city's vast mining and mercantile interests, is the marvel of the railroad world. No city of the United States of ten times the population of Butte gives to the railroads such a phenomenal business. The freight traffic of the three transcontinental railroads alone amounts, per annum, to the tremendous and growing aggregate of 1,800,000 tons. This vast total includes matte and copper shipments, mining and building timber, coal and coke, merchandise and agricultural products, but does not include the ore shipments which of themselves reach the astonishing total of 3,244,000 tons annually. But the aggregate of freight almost staggers belief. The coal alone over one road to Butte and Anaconda amounts to 50,000 tons per month, the mining timbers figure up 150,000,000 feet per annum, the copper shipments, ingots or matte, foot up more than 300,000,000 pounds every 12 months. Should the ore and coal and coke shipments to Anaconda and Great Falls smelters, and the Basin concentrator be included in the figures, and reduced to pounds, the total would be, indeed, bewildering. For these items alone foot up between 10,000 and 12,000 tons per day.

FEDERAL BUILDING, BUTTE (UNFINISHED)

The railroad freight figures of Butte, it will be noted,

are sufficiently eloquent to impress the public mind with the importance of this city as a mining center. Enormous as this traffic now is its continuous increase is as well assured as the succession of day and night. Only a few of the mines of Butte have been yet opened on a large scale. There are hundreds more which are awaiting capital for exploitation. There are nearly 4,000 patented mineral locations in the Butte district, which is only four miles square. The number of great properties yet to be opened and worked within that productive area will depend upon the energy and intelligence of capitalists who have yet to visit and inspect this wonderful mineral district.

FREE PUBLIC LIBRARY, BUTTE

THE BUTTE SCHOOLS.

PUBLIC HIGH SCHOOL, BUTTE

It is the proud boast of the people of Butte that not once in 30 years since the schools were organized has a single school tax been defeated by the qualified voters. Not once have the school trustees been restricted in the proper expenditure of school funds. All the needs of the schools have been liberally provided for and the result is that Butte has today an educational equipment as perfect as money, experience, and civic pride can make it. There are in the district twenty public school buildings, and one parochial school. Their total cost was $575,000. The school population of the Butte district is 10,640. The number of pupils enrolled is 7,843. The number of instructors employed is 205, whose wages range from $100 to $130 for males and from $80 to $90 for females. The annual school expenses of the county exceed $250,000, the expenses being met by a property tax

PAROCHIAL SCHOOL, BUTTE

of 7½ mills and a state apportionment. The efficiency of the schools, resulting from these liberal expenditures, is further enhanced by harmonious, non-sectarian control. No parent having children of school age need hesitate to remove his family to Butte in the fear that the school system is wanting in any respect. The state laws regulating public schools, and providing for their maintenance, are as wise as they are liberal.

BUTTE WATER SUPPLY.

The sum of $3,500,000.00 has been expended to provide Butte with a water system for fire and domestic purposes. No city in the county has a more perfect equipment or a more pure or abundant supply. It is interesting to note that Butte, which lies on the Pacific slope of the Rocky mountains, obtains its water from the Atlantic slope. From a dam on the Big Hole river the water is pumped twenty-seven miles to a reservoir located on the continental divide from which it flows eighteen miles by gravity to a second reservoir a mile northwest of Butte, having a capacity of 13,000,000 gallons. From this reservoir the supply is conveyed to Butte and distributed through sixty miles of pipes. A second reservoir having a capacity of 200,000,000 gallons and located thirteen miles south of Butte in a canyon where a masonry dam 88 feet high confines the water, is used mainly for the winter supply. A third reservoir containing 3,000,000 gallons supplies the mining companies for fire and steam purposes.

SWEET GRASS COUNTY.

Sweet Grass county lies directly east of Park county, in the southern part of the state, and possesses practically the same characteristics and advantages. Its industries, also, are similar, and its future is equally as bright. It is a comparatively young county, but is fast settling up and developing its splendid resources. Coal in immense areas and building stone of superior quality are found in Sweet Grass.

Big Timber, the county seat, is a growing and prosperous young city situated on the Northern Pacific railroad. It is an important wool-shipping point. There are fine opportunities in this locality for those seeking land for settlement or desiring to enter into the stock raising and wool growing business.

INDIAN SCHOOL ON BLACKFEET RESERVATION

TETON COUNTY.

Teton county has a population of about 6,000. It lies in the extreme northwest portion of Montana, and is about 100 miles long from its southern boundary to the

Canadian line, with an average width of 75 miles, having an area of 7,558 square miles, or 4,847,120 acres; an empire within itself. This acreage may be classified approximately as follows:

Blackfeet Indian Reservation	1,760,000
Forest Reserves, mountainous	1,000,000
Hay, grazing and agricultural lands, patented or filed upon	500,000
Vacant grazing lands	750,000
Vacant farming lands, irrigable	837,120

Doubtless in a very few years the Indian reserve, now held by less than 2,000 Indians and mixed-bloods, will also be added to the public domain.

Teton county has more available water for irrigating purposes than any other county on the eastern slope of the Rocky mountains in the state of Montana. It also has a great area of splendid farming land that is susceptible of irrigation. Raising grain, hay and vegetables with the aid of irrigation is no longer an experiment—in fact, it has been fully demonstrated that crops cannot be successfully grown in the semi-arid northwest without it; and it is fortunate that Teton county has the land, the water and the climate to make farming and stock growing paying industries.

Notwithstanding the fact that six large irrigating canals (besides many smaller ones) have been taken out of the rivers and creeks of Teton and much of the land has been already appropriated, large tracts of excellent government farming and grazing land yet remain for honest settlers, be they rich or poor, who, by individual efforts, or by co-operation, seek to better their condition in the great and growing northwest.

The cattle and sheep industries of Teton county are rapidly growing. The rich, natural pasturage in spring, summer and autumn, supplemented by winter feeding, when necessary, insures handsome returns. Teton county cattle, grass-fed, are often taken from the ranches and shipped to the English market, so much superior are their condition and weight compared with cattle from less favored sections even though grain-fed. The raising of sheep in Teton county is also profitably conducted on a large scale and the wool commands top prices on account of grade and cleanness. The soil, water and climate also adapt the county pre-eminently to the raising of horses.

Important petroleum discoveries have recently been made in Teton, and boring for oil is an active and promising industry.

Choteau, the county seat, is a thriving city whose people extend generous welcome to homeseekers desirous of investing in farming and stock raising business. Nowhere are there better prospects of success.

WINTER FEEDING SCENE, NEAR BILLINGS, YELLOWSTONE COUNTY

YELLOWSTONE COUNTY—BILLINGS.

Yellowstone county, having an area of 6,212 square miles, embraces much of the best land in the fine valley of the Yellowstone river. Great rolling prairies, rich bench lands and some sheltering mountain ranges diversify the grass-carpeted surface. It is a great cattle and sheep county, but its chief wealth of the future lies in agriculture, for which all the necessary conditions of success are conspicuously present. The county seat is Billings.

THE CITY OF BILLINGS.

Billings is a substantially built, prosperous and progressive city, possessing all the conveniences of metropolitan life. Its public buildings and business blocks, its well-kept and well-lighted streets and extensive mercantile establishments are notable, one of its mercantile houses having ninety employees. Its people are cultured and enterprising, being principally native Americans and the most intelligent of foreign-born citizens. Nearly all the principal religious denominations have well-attended churches, with auxiliary guilds and societies. Excellent schools are provided, and the graduates from the high school are admitted to most of the leading universities without examination. Especial attention is called to the school exhibit now at the Educational building of the World's Fair at St. Louis. Clubs for social enjoyment and literary culture are numerous and active, and most of the leading frater-

PUBLIC LIBRARY, BILLINGS

nal societies are represented. The city has an extensive sewer system, water works and electric lights. Good sidewalks extend to every part of the city. The paid fire department is noted throughout the northwest for efficiency and modern equipment. The city owns a magnificent library building, well filled with the world's best literature. The streets are lined with shade trees, and the home-like residences and well-kept lawns mark it as a city of homes.

PUBLIC SCHOOL, SOUTH SIDE, BILLINGS

Billings is situated on the Yellowstone river at the junction of the Northern Pacific and Burlington railway systems. Two branches of the former road run from the city, one to Red Lodge, the greatest coal-producing center of the state, and the other to the coal camps of Gebo and Bridger. The Cody branch of the Burlington, opened last year, has connected Billings with northern Wyoming, a country rich in mineral wealth and a splendid agricultural and stock-raising district. Other branches are in contemplation. Billings is thus the banking and commercial center of a country as large as Oklahoma, and capable of supporting a population equally as great. Its tributary coal measures are inexhaustible, the product being of the finest quality. Cheap fuel is assured.

HIGH SCHOOL, BILLINGS

The proximity of the mineral belts of Eastern Montana and Northern Wyoming and of the vast coal fields, together with the practically unlimited water power which the Yellowstone and its tributaries are capable of developing, with a down-hill pull for ore and cheap fuel, afford sufficient evidence that Billings possesses all the essentials for smelting and other manufacturing industries.

SISTERS' HOSPITAL, BILLINGS

AGRICULTURAL RESOURCES.

But, however rich in minerals and the essentials for manufacturing, the region tributary to Billings

STACKING ALFALFA, NEAR BILLINGS, YELLOWSTONE COUNTY

may be, her productive importance at present rests upon her agricultural resources and the kindred industries of stock raising and wool growing. Within a radius of 100 miles, with Billings as the center there is a greater acreage of river, valley and bench lands, susceptible of irrigation, and with abundant water supply, than in any similar area in arid America. Already plans to reclaim over 1,000,000 acres are under way, with probably an equal area only awaiting the necessary capital. One of these enterprises is being operated at Billings at the present time, by which 30,000 acres of magnificent bench land is being reclaimed by the construction of an irrigation canal, fifty miles in length, and carrying an ample and permanent supply of water, and which will make prosperous homes for a large farming population.

Recent legislation in Congress will open to settlement, as soon as the necessary surveys and other preliminaries are completed, 1,100,000 acres of the Crow Indian reservation, adding the greater portion to Yellowstone county. This tract contains about 300,000 acres of land capable of being irrigated, and 800,000 acres of grazing lands. It is the intention of the government to sell the grazing lands to homesteaders of irrigable land at a nominal price. Much of the land now classed as "grazing" will produce winter wheat by summer fallowing. There will, without doubt, be a rush of homeseekers so soon as the announcement of its opening shall be officially made. Billings will be the chief point to which the expectant army of homeseekers will converge, as the land office business of this "new empire," which the government is opening, will be transacted there.

The soil is marvelously productive, and under the combined influence of the heat of the growing season and water the growth of vegetation is simply wonderful. No farmer who has irrigated land ever cares to return to a country where the dependence is upon the natural rainfall. No fear of drought in the growing season nor of a wet harvest time haunts the farmer who is fortunate enough to be able to irrigate his farm in the Yellowstone valley. All kinds of crops that grow in the temperate zone can be grown in Montana, and the yield is enormous. Oats produce from 40 to 160 bushels to the acre; spring wheat from 25 to 50 bushels; barley 40 to 60 bushels; corn 50 to 60 bushels on the ear; potatoes 250 to 1,000 bushels per acre, of a quality unsurpassed; sugar beets 12 to 30 tons; rutabagas 20 tons; mangles 20 to 40 tons; timothy hay 1½ to 2½ tons; natural bluejoint hay 1 to 2 tons; alfalfa 5 to 7 tons (3 cuttings) per acre. Melons,

cucumbers, tomatoes, strawberries, and the usual vegetables are produced of excellent quality and bear abundantly. Apples attain a brilliance of color and excellence of flavor superior to those of the Pacific coast states; plums, pears and cherries produce large crops, and peaches of fine flavor and size are annual exhibits at the Yellowstone fairs. Berries of all sorts do well.

"ALFALFA IS KING."

The most profitable crop for the farmer, and the one that gives him the least trouble after seeding, is alfalfa. Three crops are produced every year, making an aggregate yield of from 5 to 7 tons per acre. It usually sells at from $4.00 to $5.00 per ton in the stack, to be fed to sheep or cattle, which after six weeks or two months on alfalfa and a small grain ration are finished for the slaughter house. The farmer has only the labor of irrigating his fields and harvesting his crops; the stock owner attends to the feeding. Some farmers of a more speculative turn make good money by buying sheep in the fall, and selling them fattened in the spring. About a quarter of a million sheep are fed for market in the valley adjacent to Billings every winter. Nowhere in the world are farmers more favorably situated for attaining a comfortable affluence than in the Yellowstone valley.

Billings is the greatest primary wool market in the world, the annual shipments reaching 15,000,000 pounds. Buyers from all the great wool markets go nearly every summer, where competition for Montana wools is keen. Billings is also the greatest mutton-shipping point on the Northern Pacific railway, and cattle, horses and other exportations make this one of the leading freight-shipping points on that great transcontinental line.

So much of Montana is given over to its vast mining industries that a special advantage to all the agricultural interests is that the home demand for farm products far exceeds the supply. A cash market and good prices are assured.

ADMIRABLE CLIMATE.

The Billings district of the Yellowstone valley has an admirable climate. Last winter, which was an exceptionally cold one throughout the

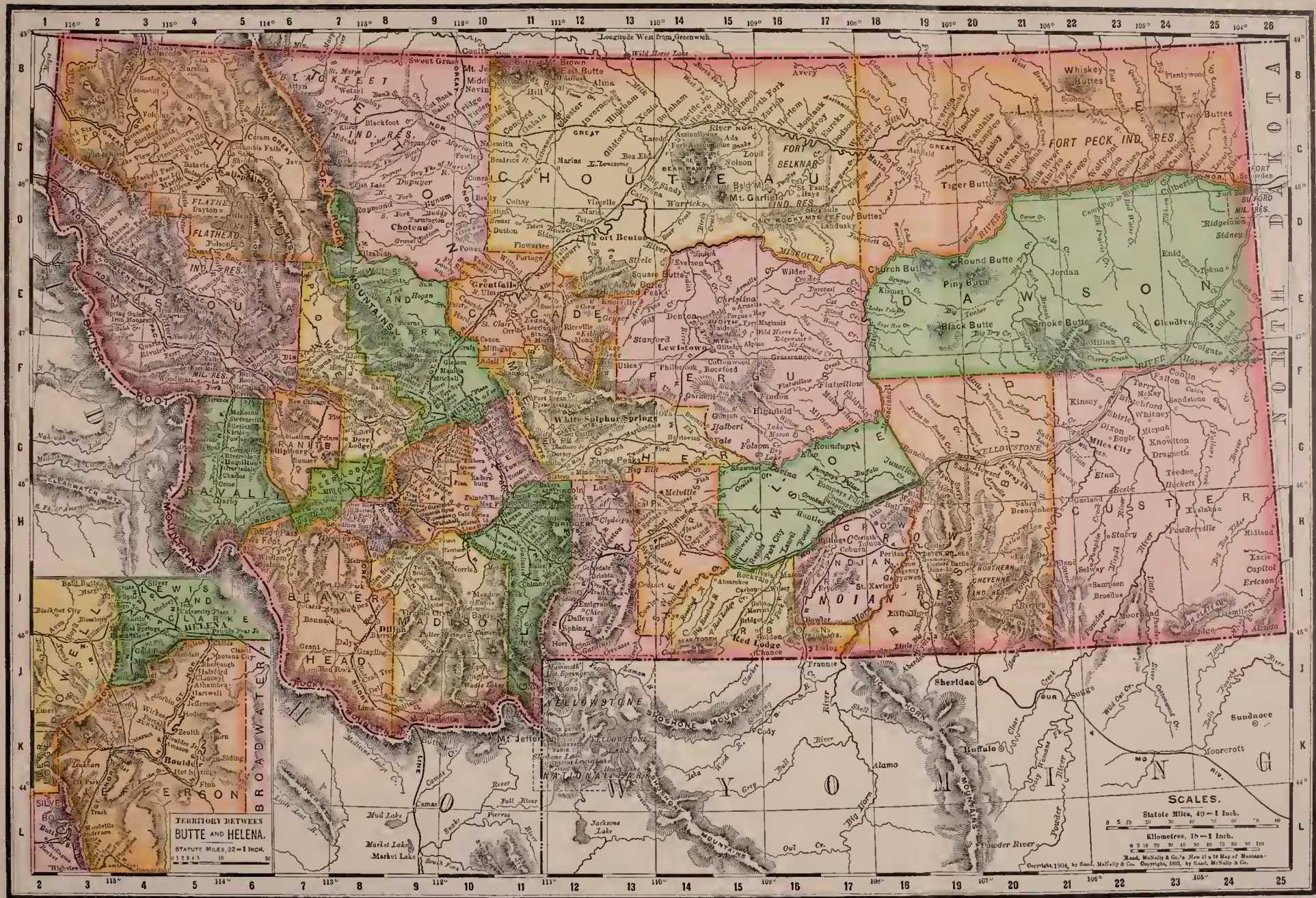
ORCHARD SCENE, NEAR BILLINGS

world, there were very few days when the mercury dropped below zero, according to the government record at Billings. The snowfall is less than in New York or Ohio. A day without sunshine is a novelty. Farmers often do their plowing in the Yellowstone valley when the eastern states are yet in the grip of winter.

VALLEY COUNTY.

Lying east of Choteau is Valley county, which is a region of great plains devoted to cattle raising and susceptible of extensive farming, its numerous rivers supplying a great abundance of water for irrigation. The land is very productive and much of it is yet open to location. Valley will ultimately be a great wheat-raising region like Manitoba. The Fort Peck Indian reservation is within the borders of Valley county. It contains much valuable land, which will soon be thrown open to settlement. Valley county is rich in lignite coal, which supplies cheap fuel to the people. Glasgow is the county seat, located on the Great Northern railroad, which crosses the county from east to west.

WAGGONER APPLE TREE, BILLINGS


Longitude West from Greenwich.
TERRITORY BETWEEN BUTTE AND HELENA.
STATUTE MILES, 22 = 1 INCH.
SCALES.
Statute Miles, 40 = 1 Inch.
Kilometres, 75 = 1 Inch.
Rand, McNally & Co.'s New 11 x 14 Map of Montana.
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MAP STATE OF MONTANA

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